HOW TO DRAW MANGA

Animals

Pets, Wild Animals, and Birds

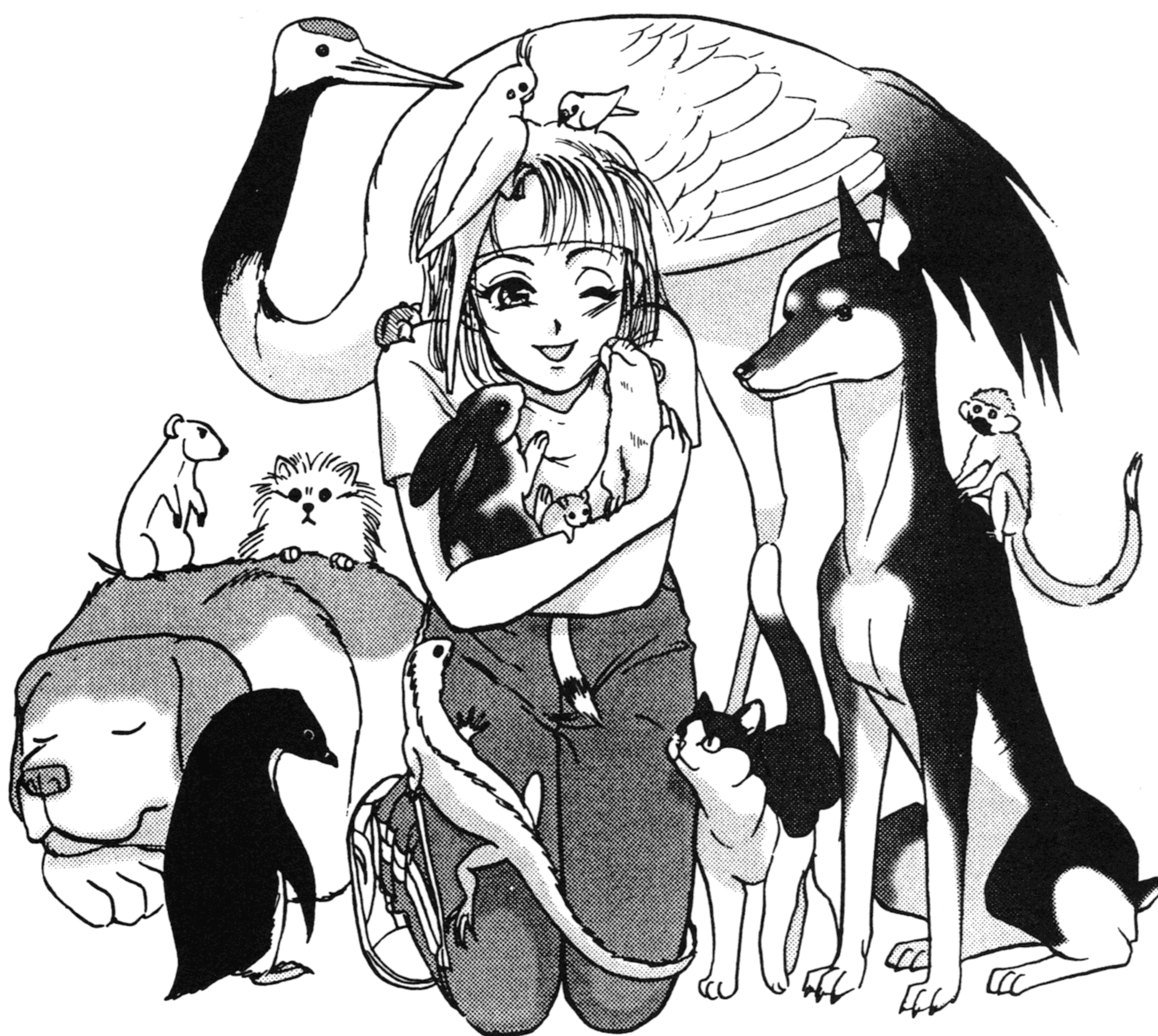
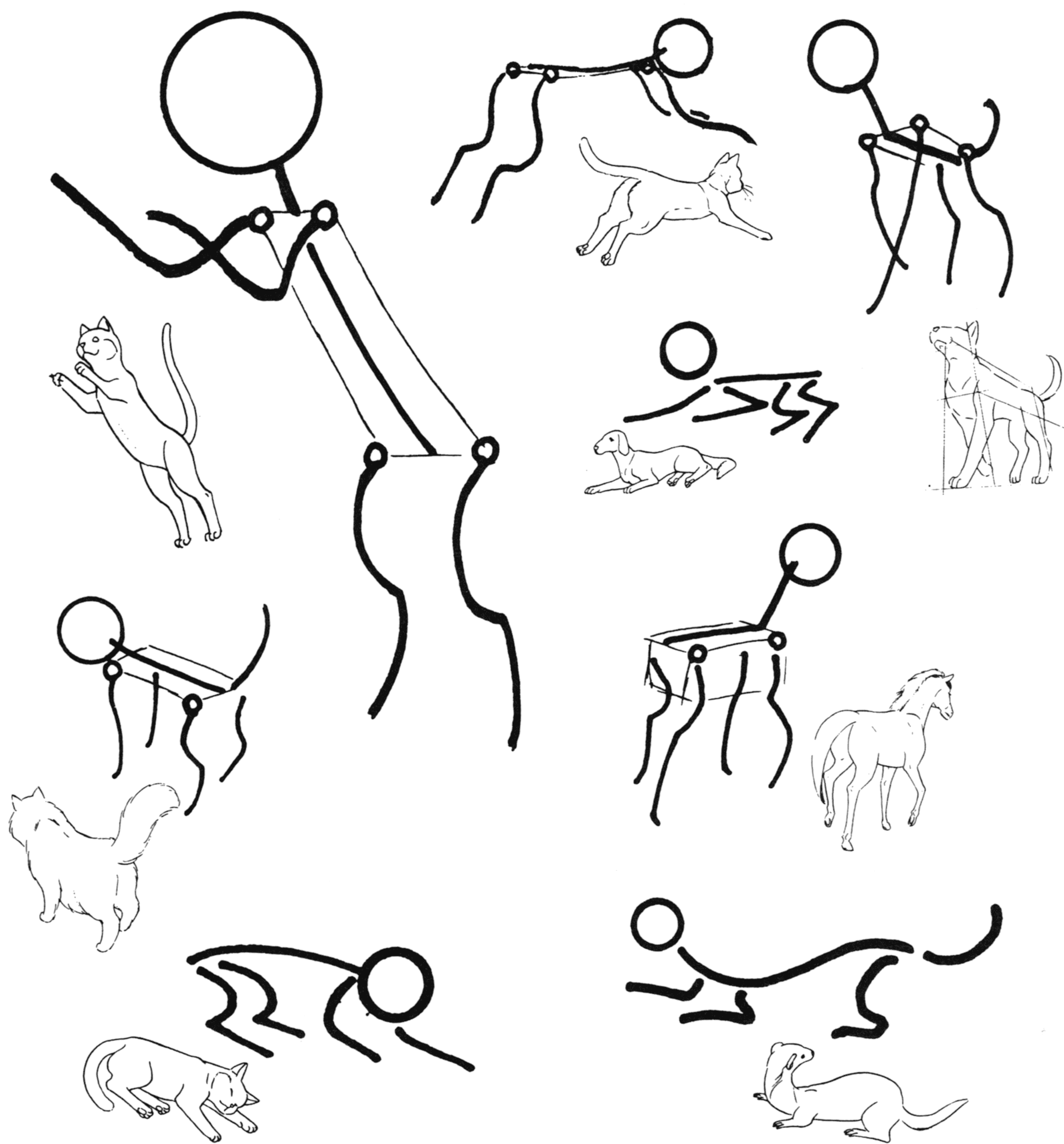



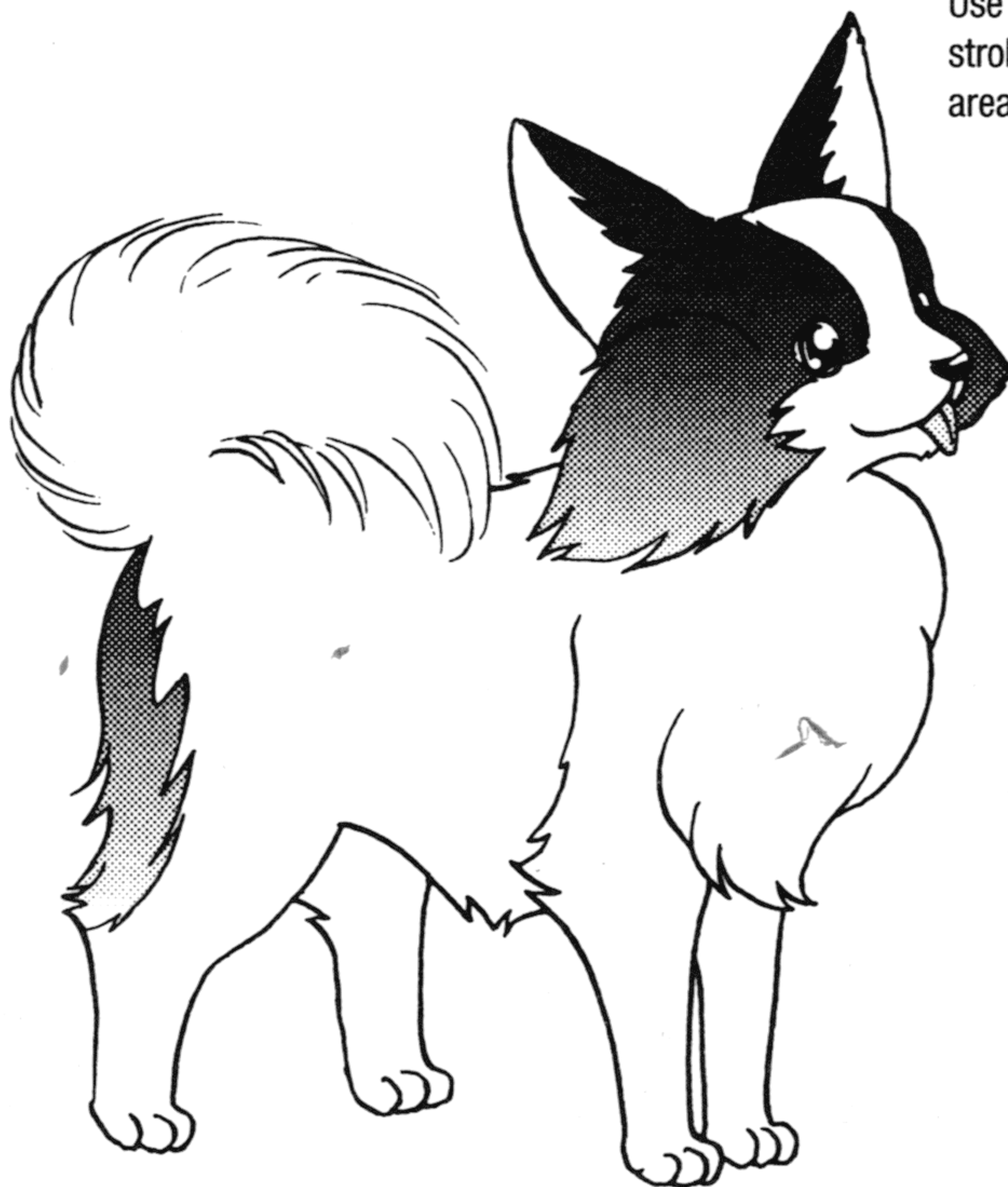
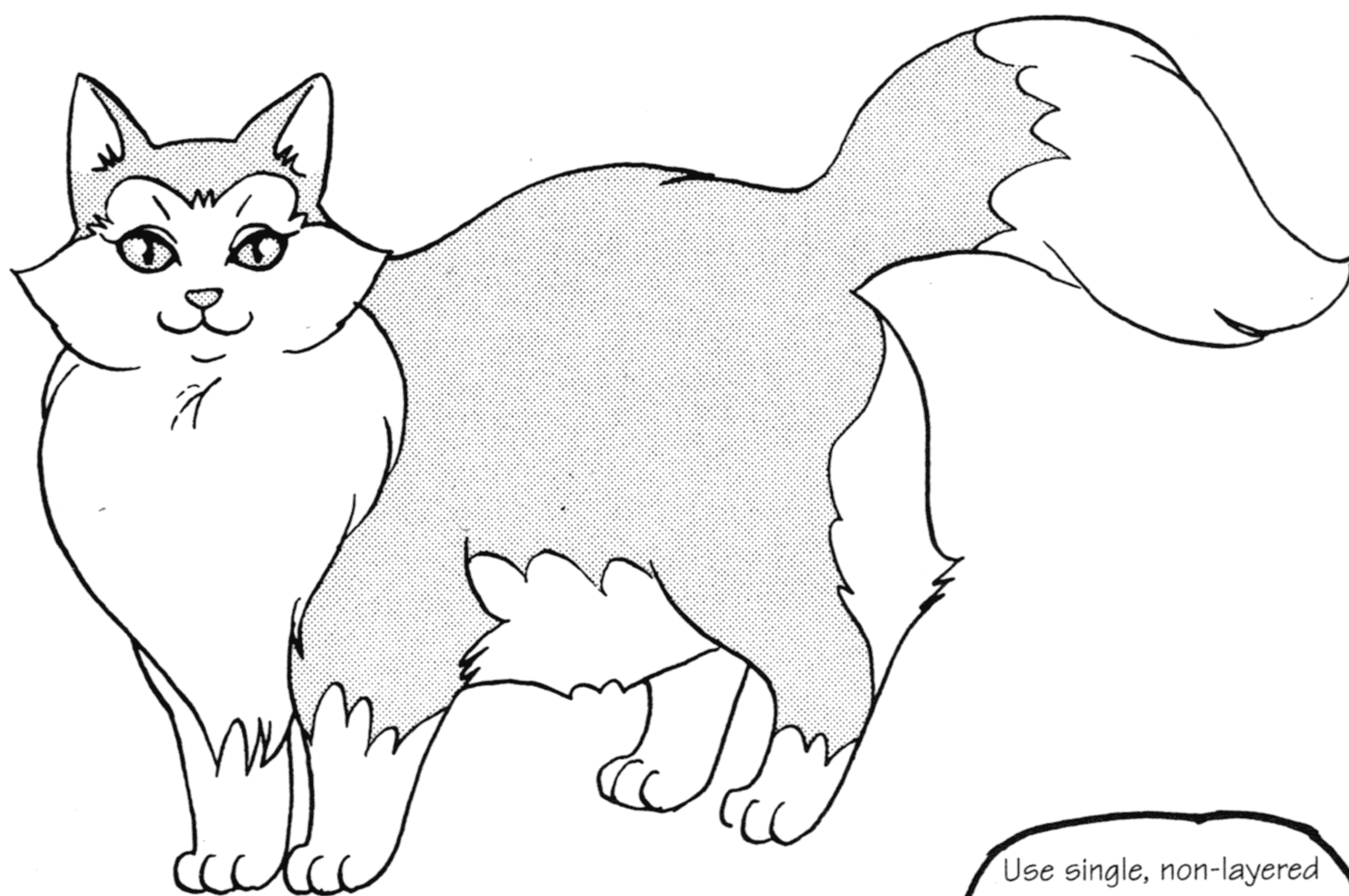
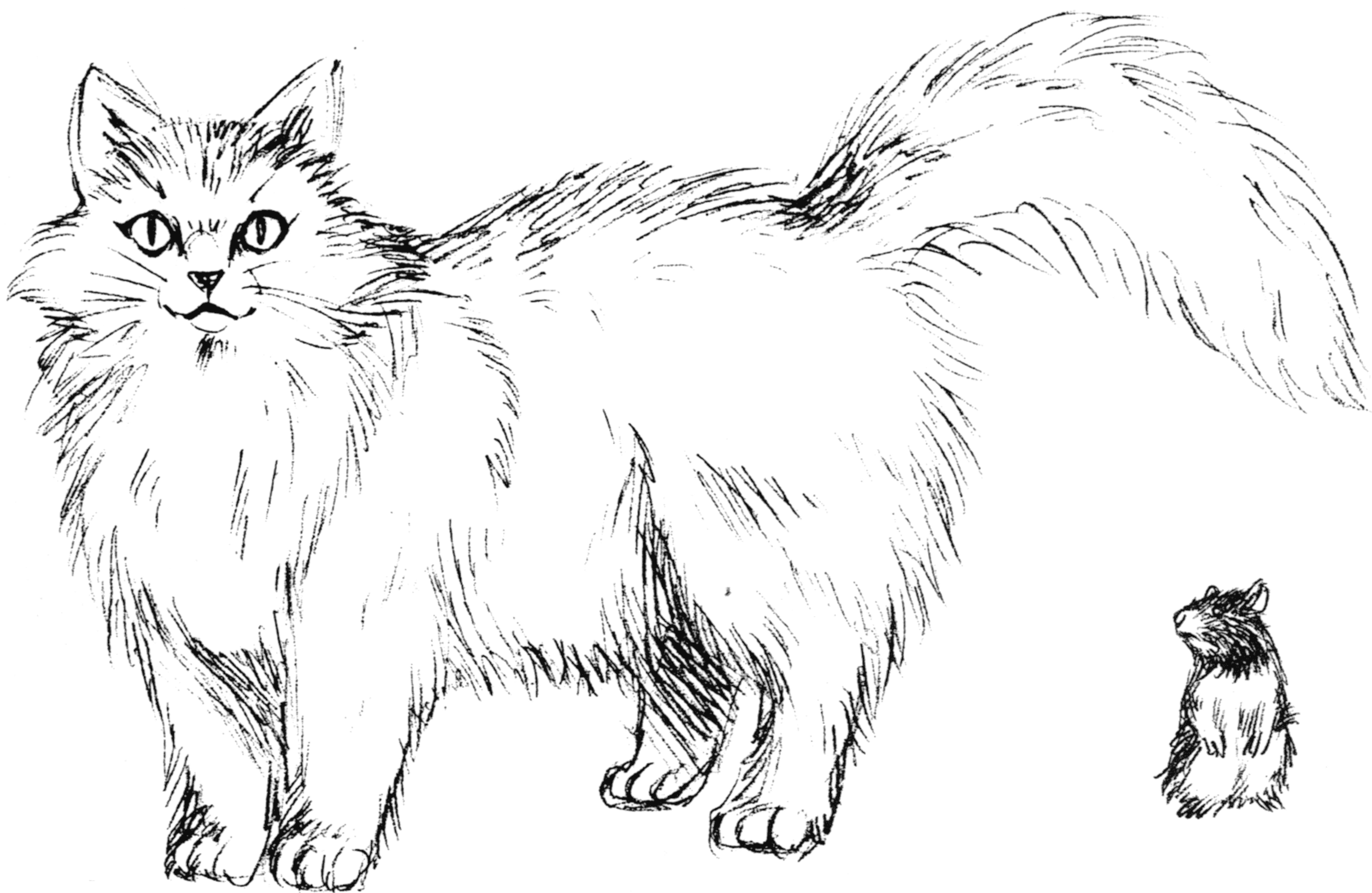
Table of Contents

Chapter 1

The ABCs of Drawing Animals

Simplify

Abstract and simplify while drawing the animal's entire figure. You can still draw an animal without reproducing each strand of fur on its body.

The whiskers are usually omitted.

Use wispy, jagged strokes to recreate areas of fluffy fur.

Include the fur when drawing the figure's silhouette.

Use single, non-layered strokes to draw a kitty's outer contours. You can do the same with other animals too!

Making Animals with Matchsticks

Using a matchstick to portray the animal's head and back makes drawing any number of positions a snap.

Head

Body

Actual Skeletal Structure

Matchstick Skeletal Structure

Side View

①

② Legs

③

④

Back

Add a "fleshed-out" oval to the back.

⑤

Front View

①

The back is not visible from the front. Add some form of mark at least to indicate where the back is positioned.

②

③

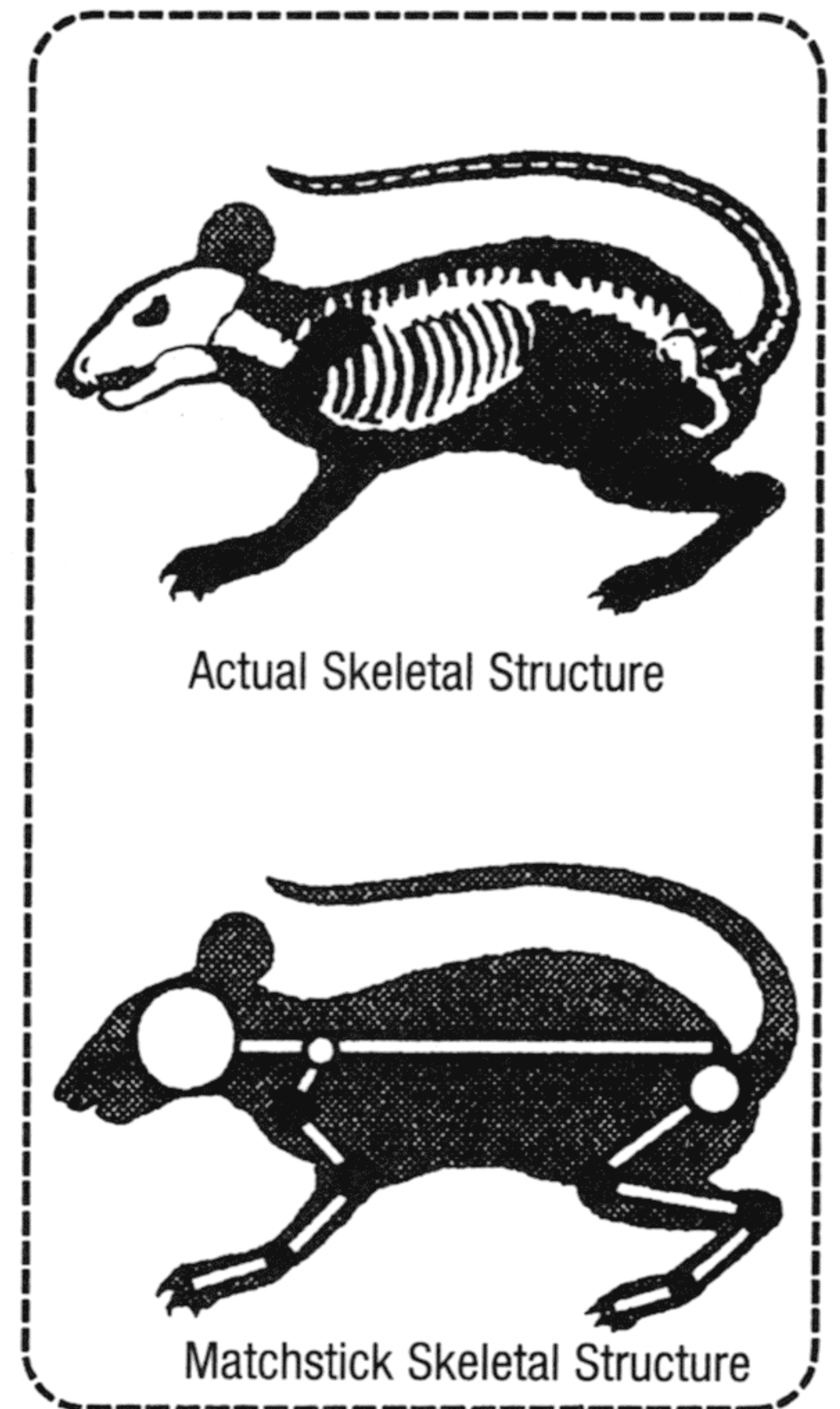
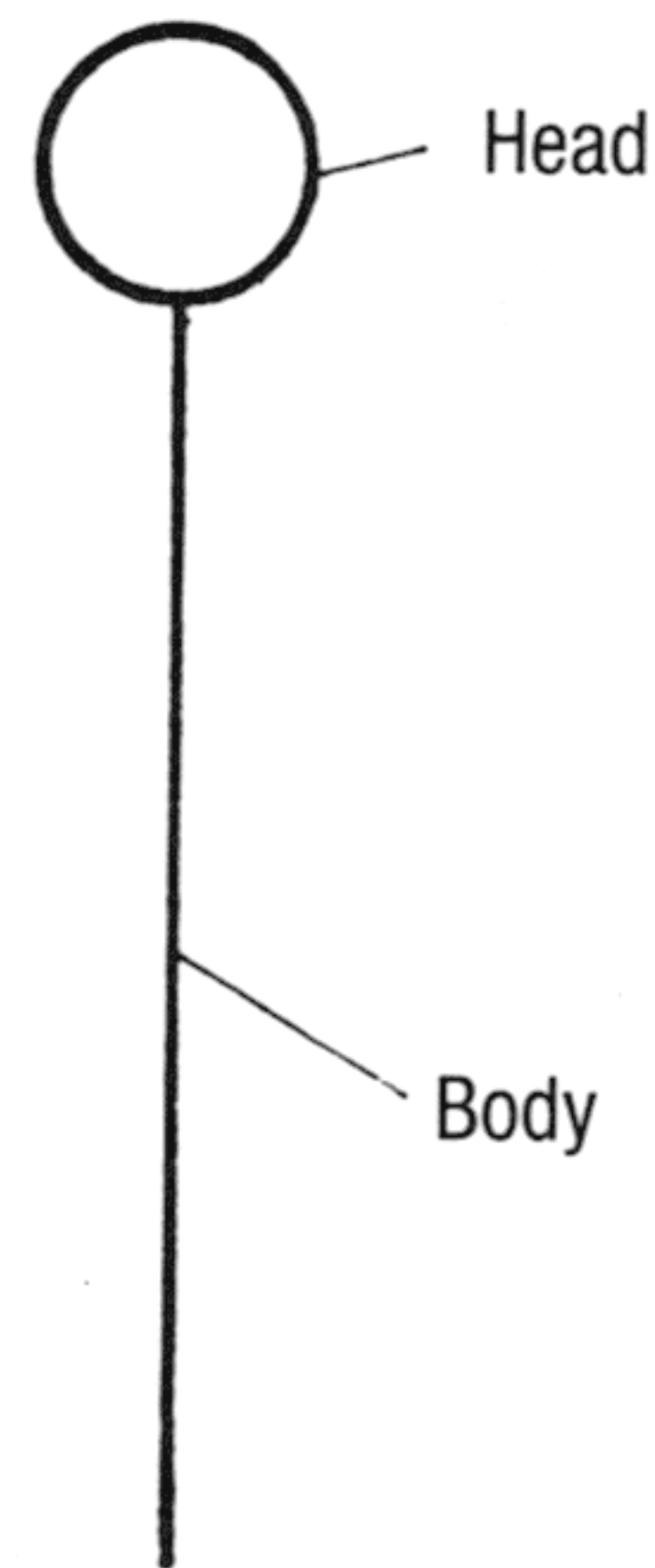
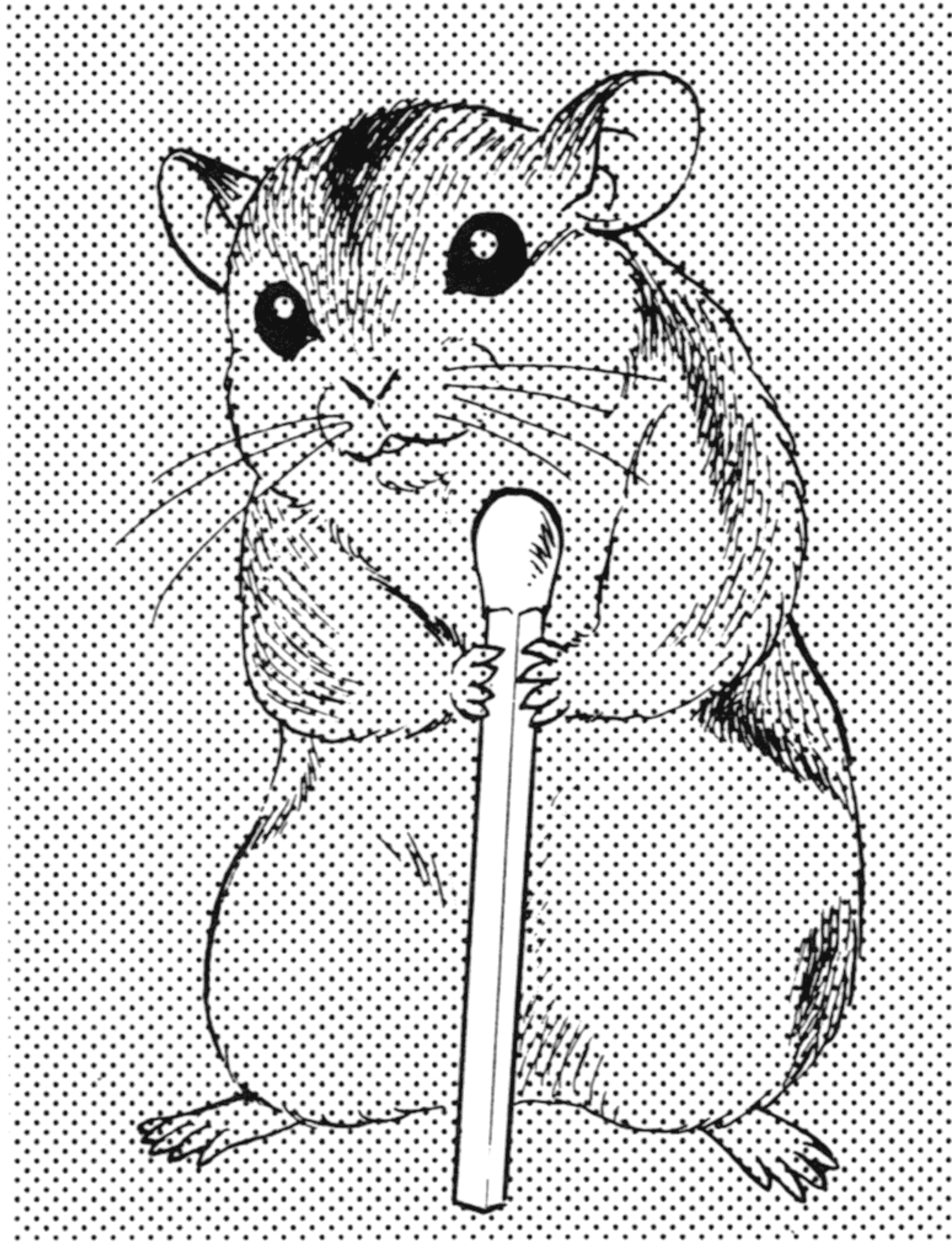
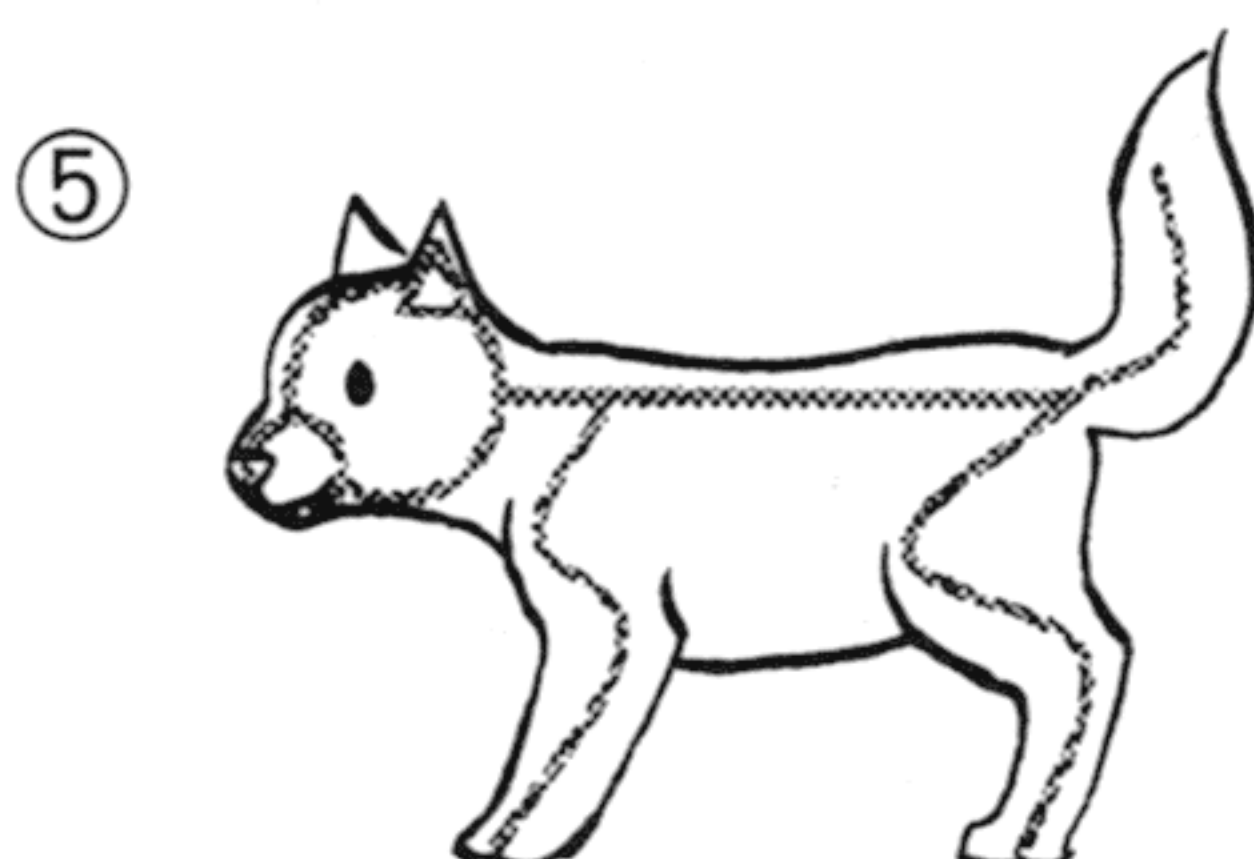
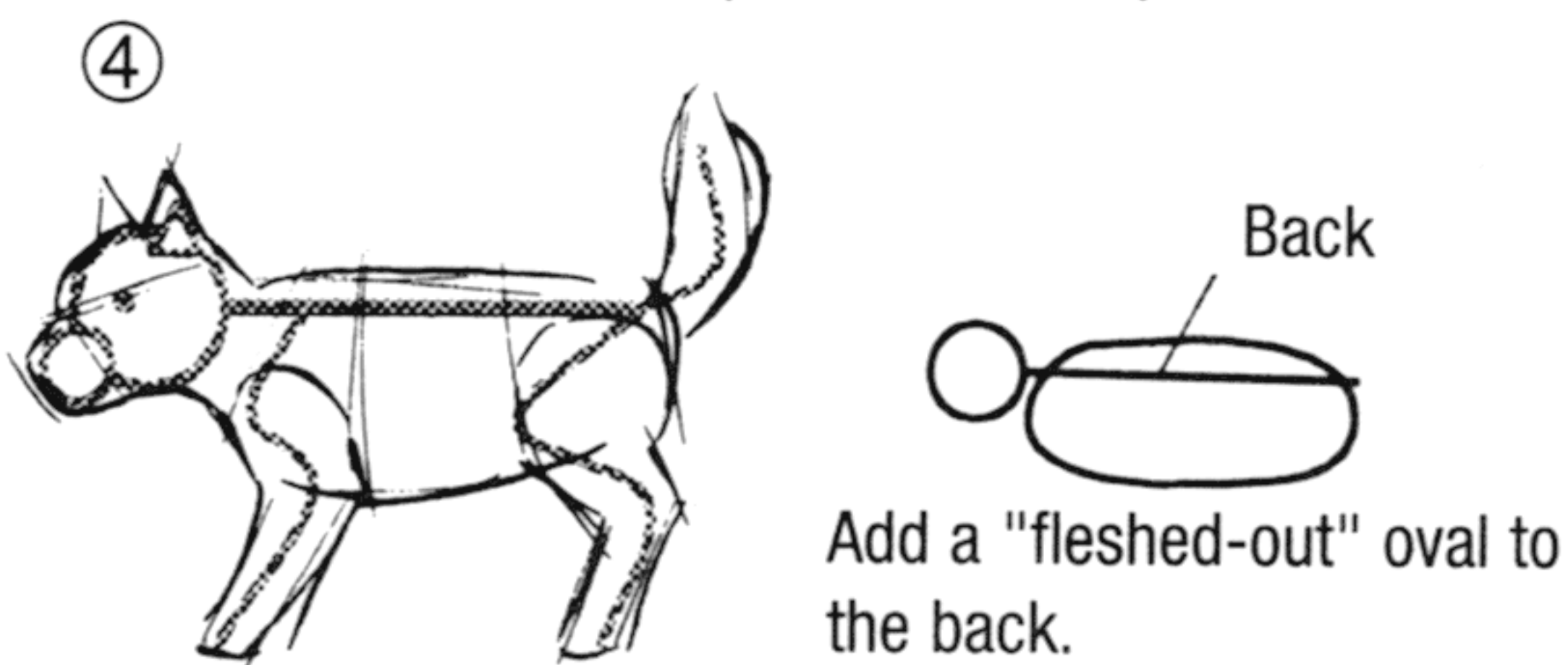
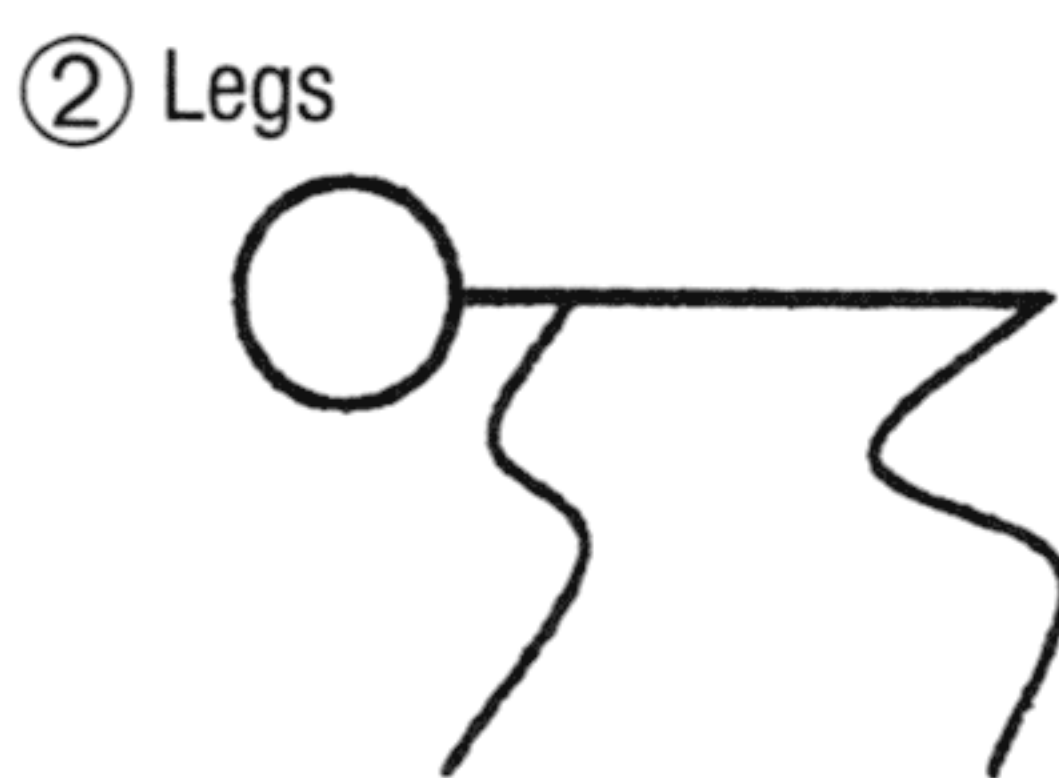
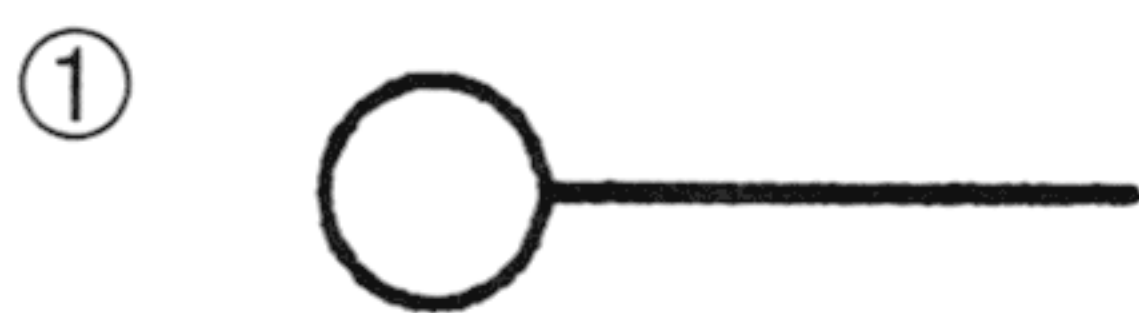
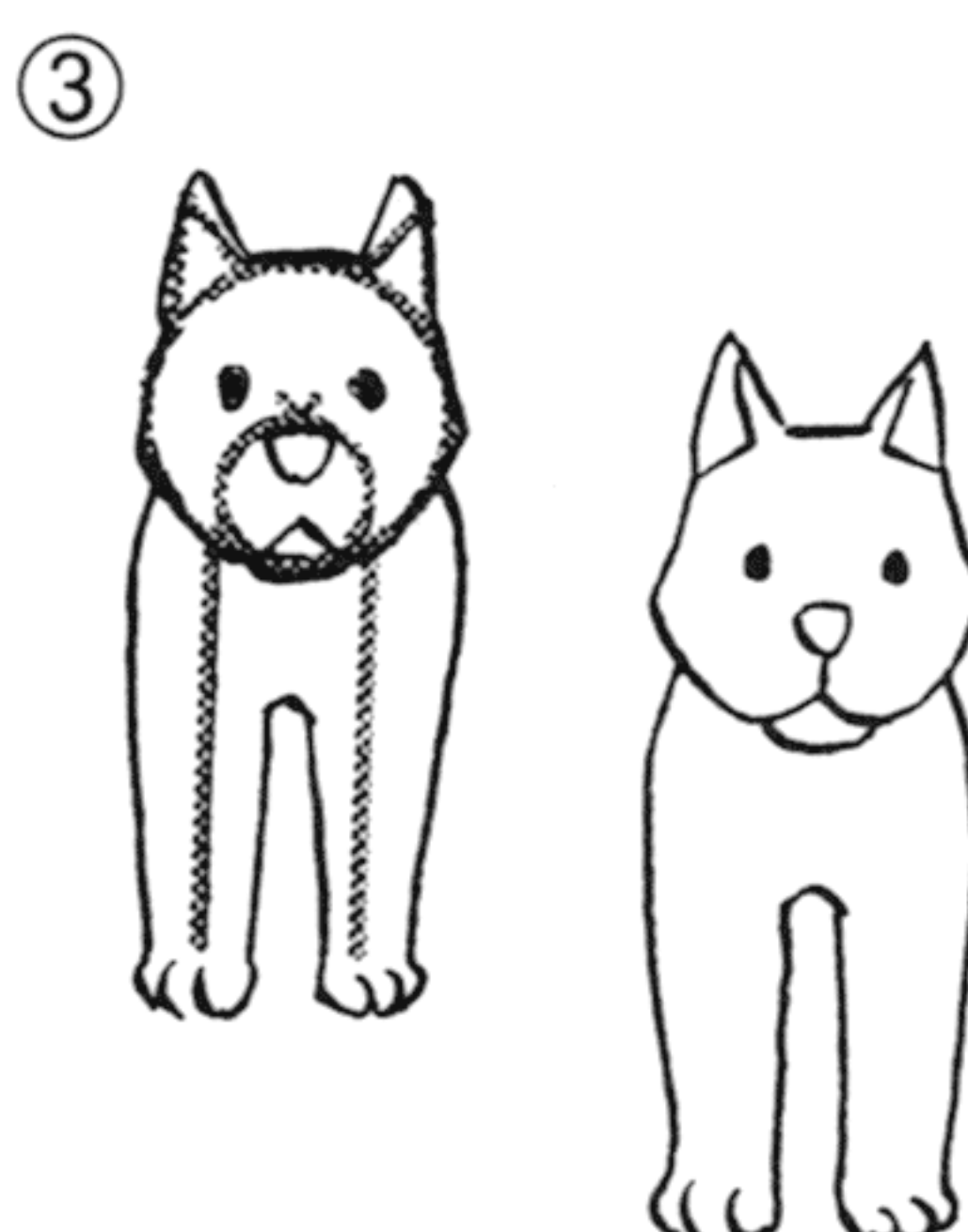
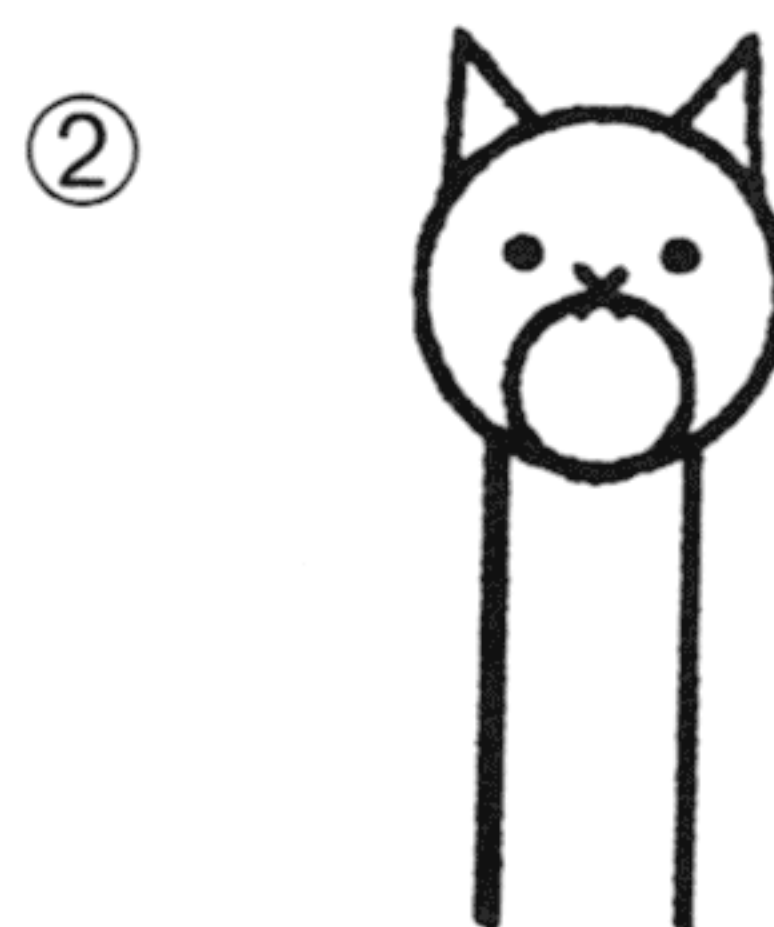
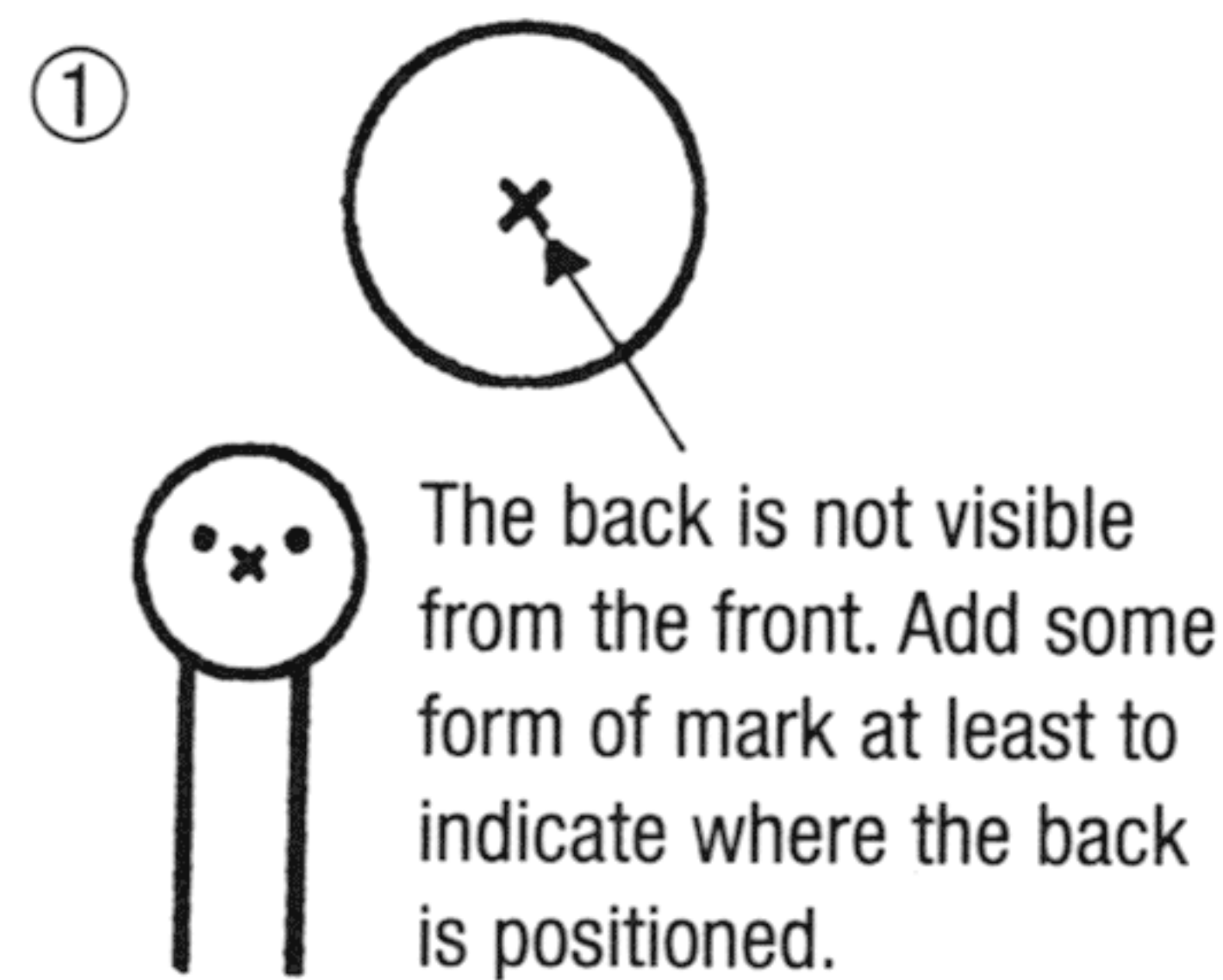
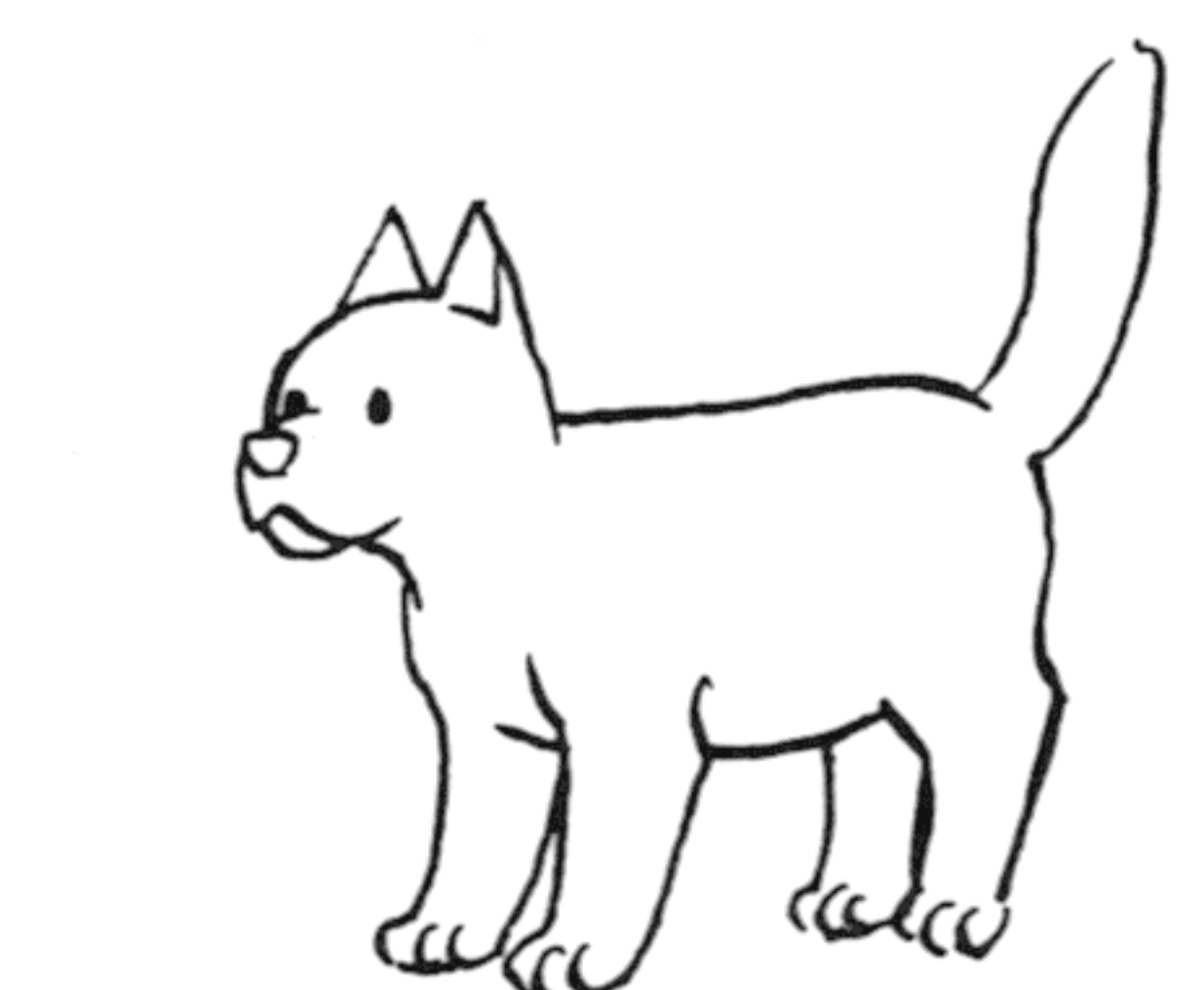
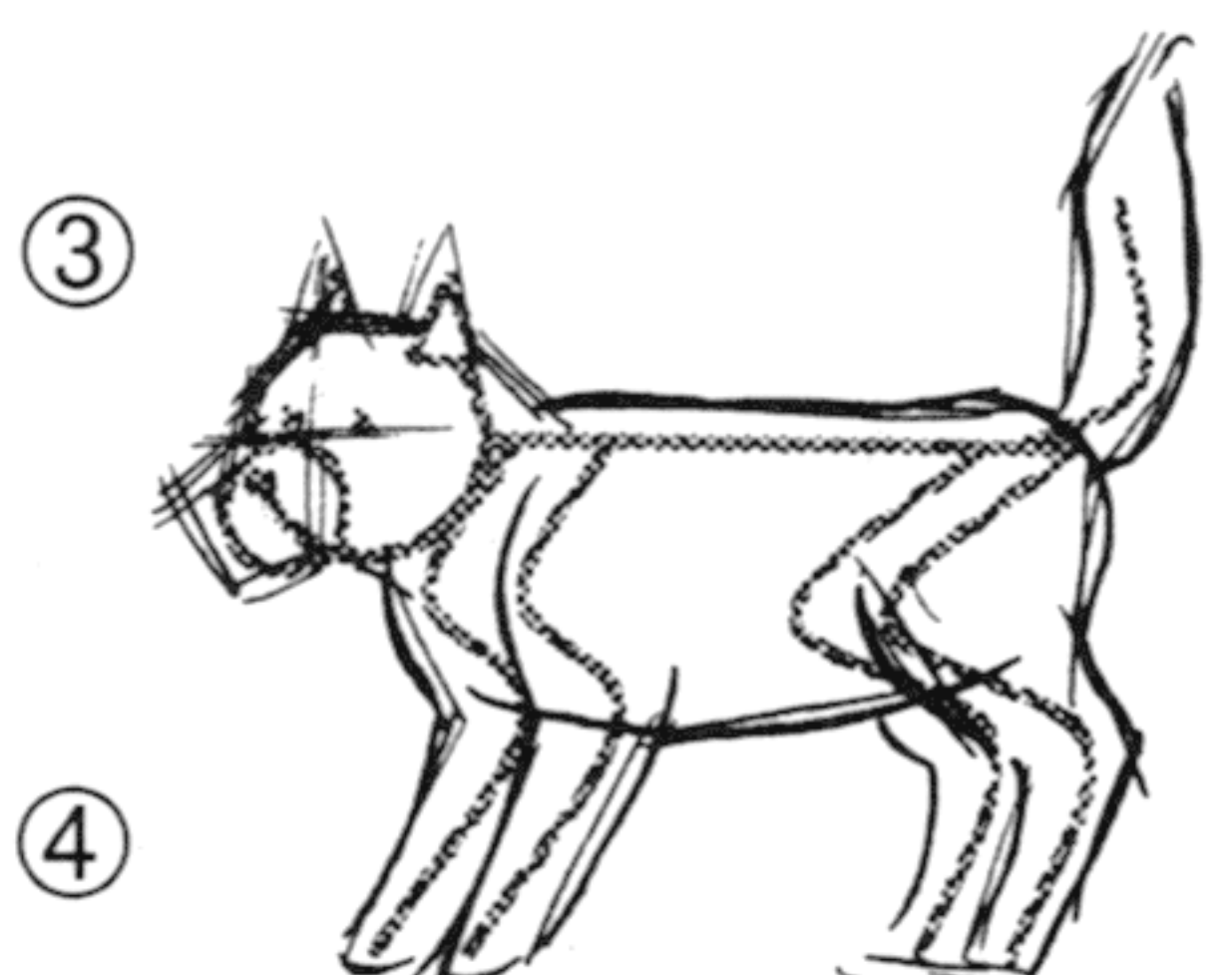
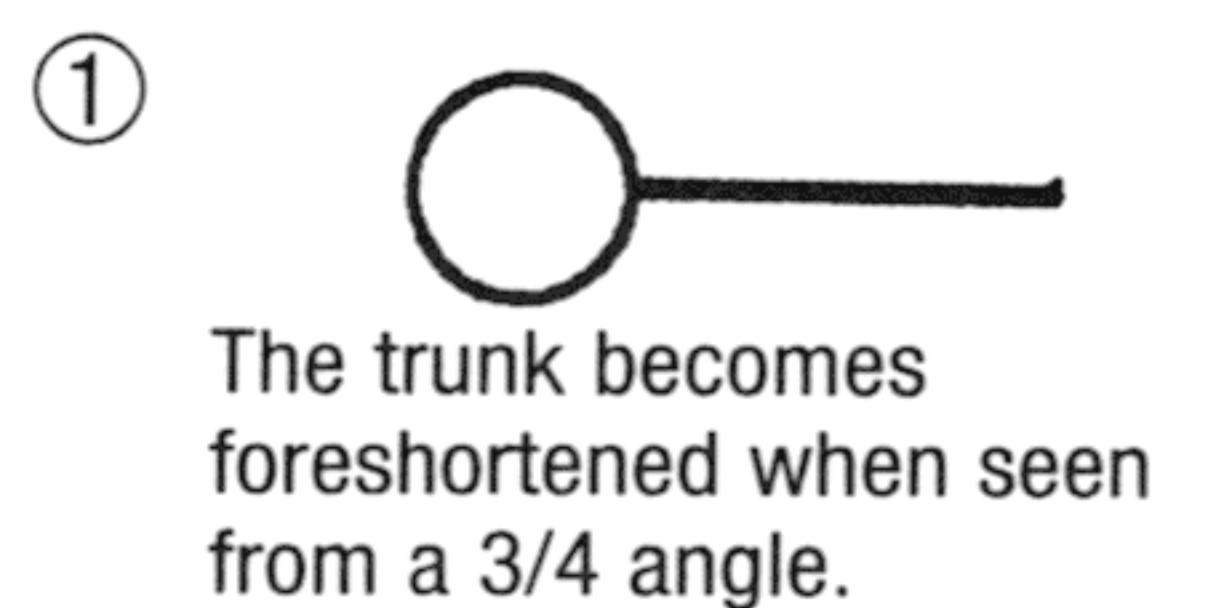
3/4 View

①

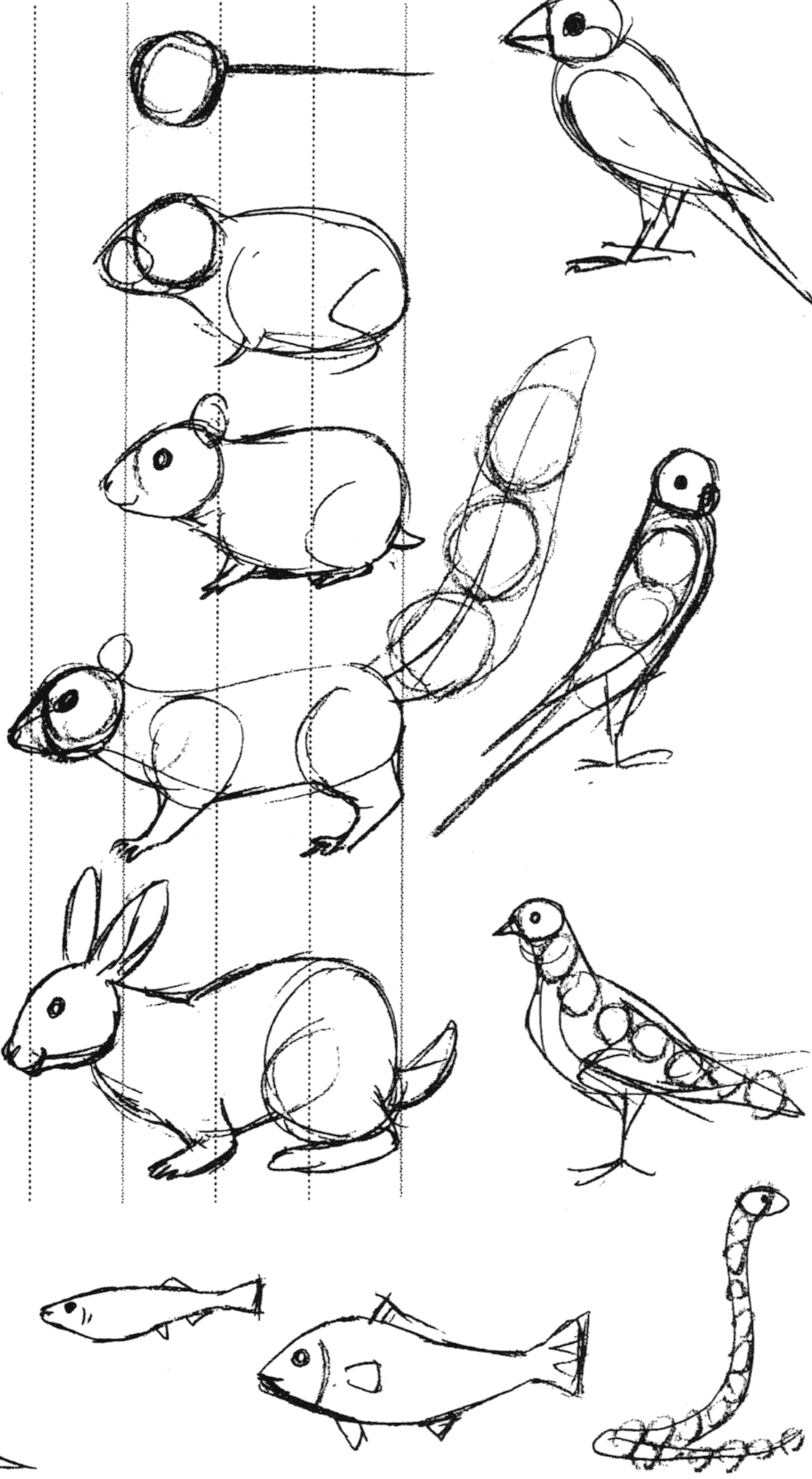
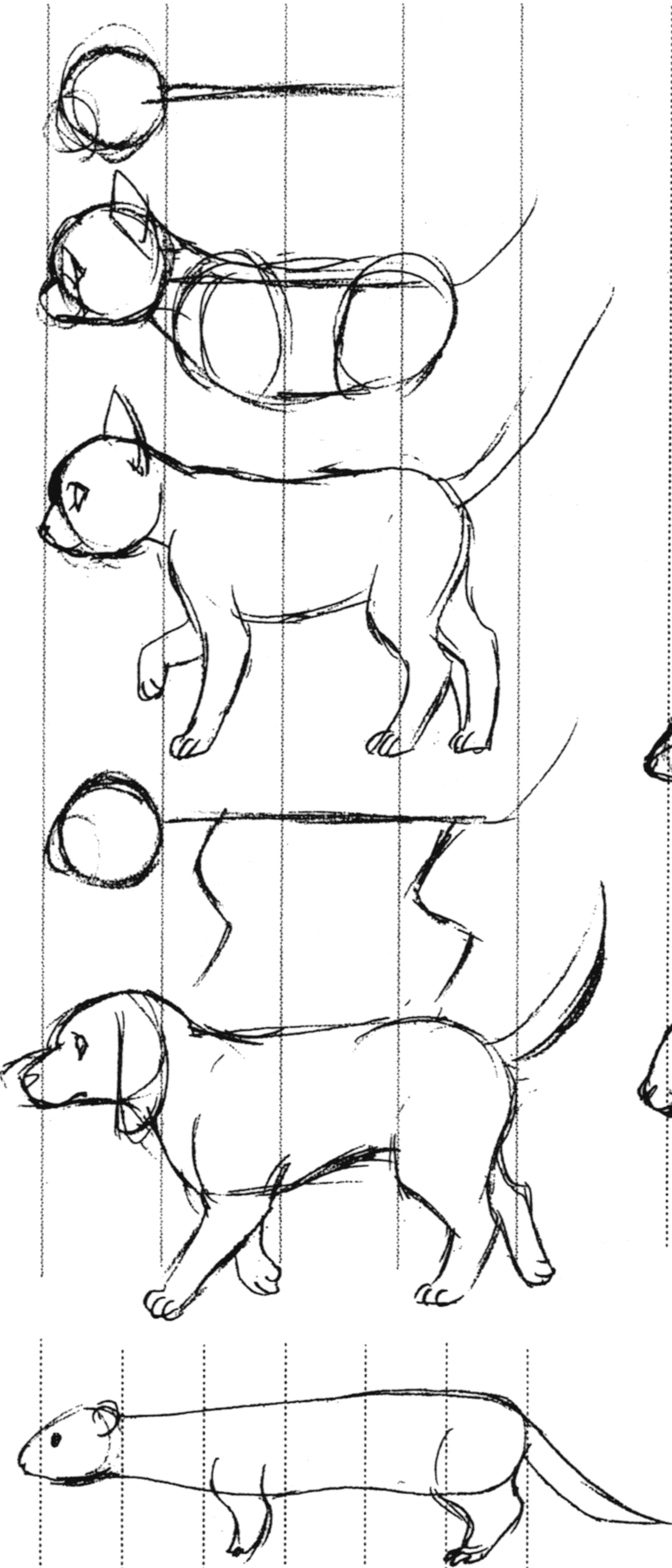
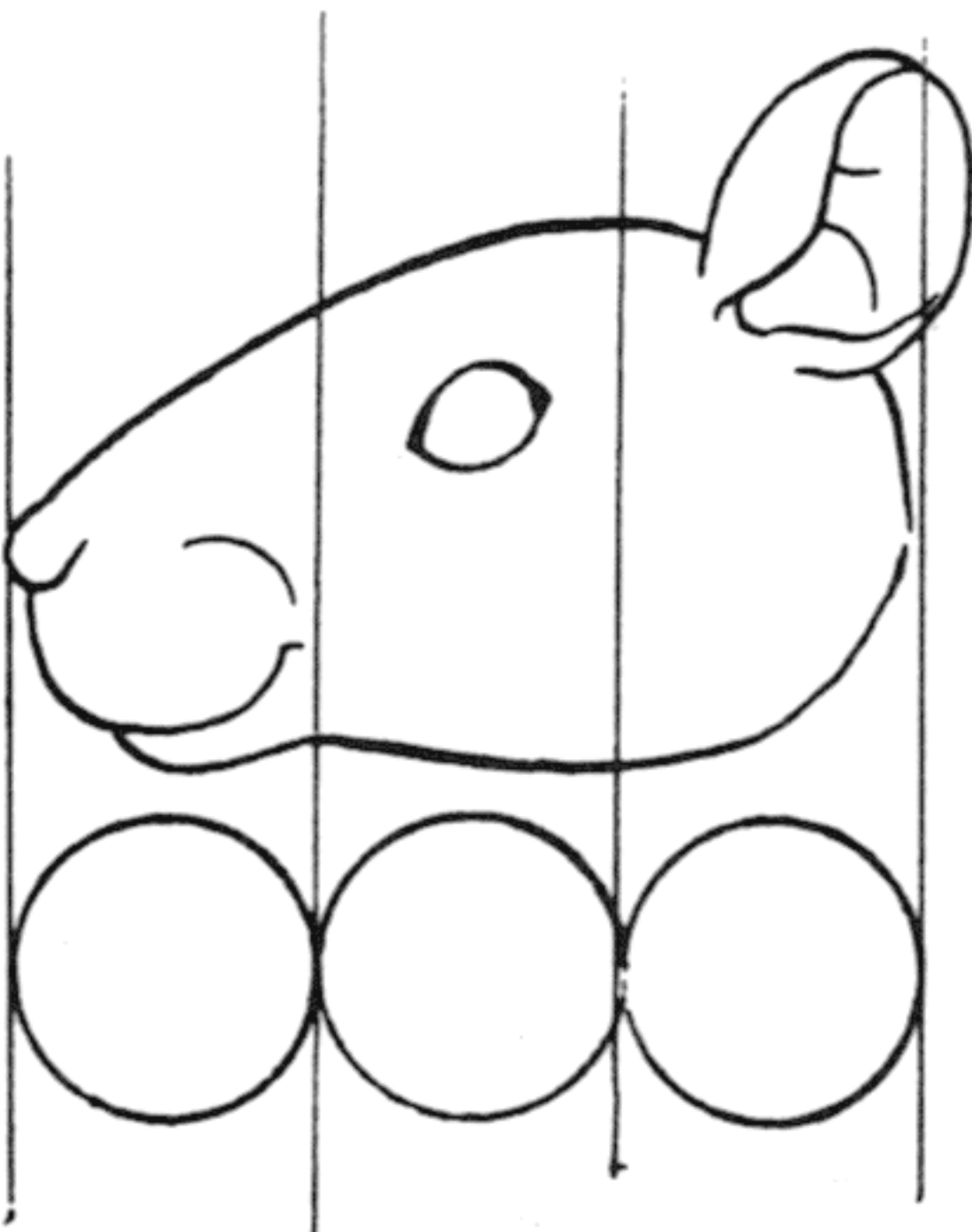
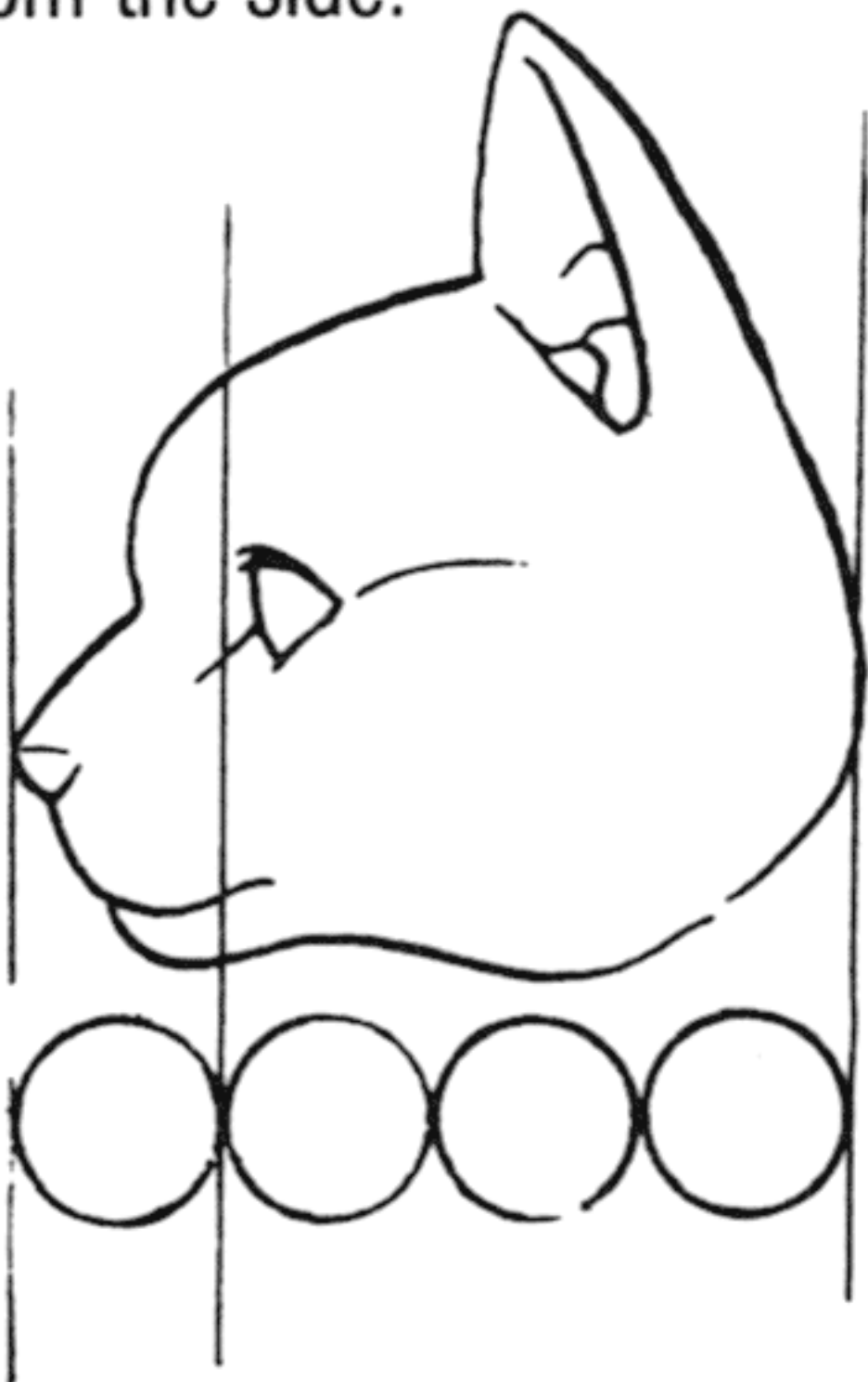
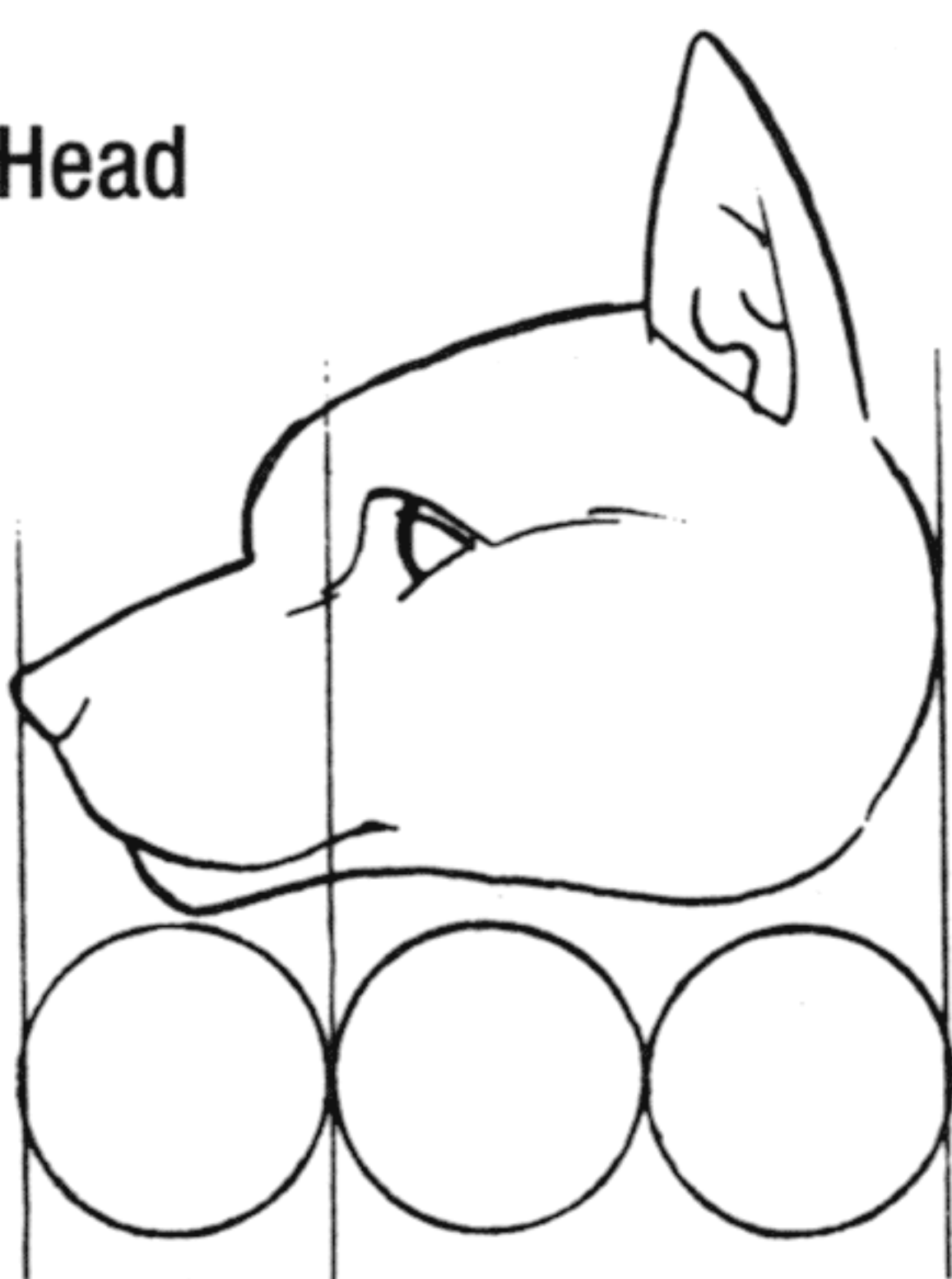
The trunk becomes foreshortened when seen from a 3/4 angle.

②

③

④

Head-to-Body Ratios

These ratios serve as a guide when determining the length of the face or body seen from the side.

Balancing the Head and Snout

Snakes have bodies made up of ten or more heads in length.

The S-shaped Legs

When we crawl on all fours, our limbs also take on an S-shape.

Ex.: Dog

The tail extends from the trunk.

Shoulder

Knee

Ankle

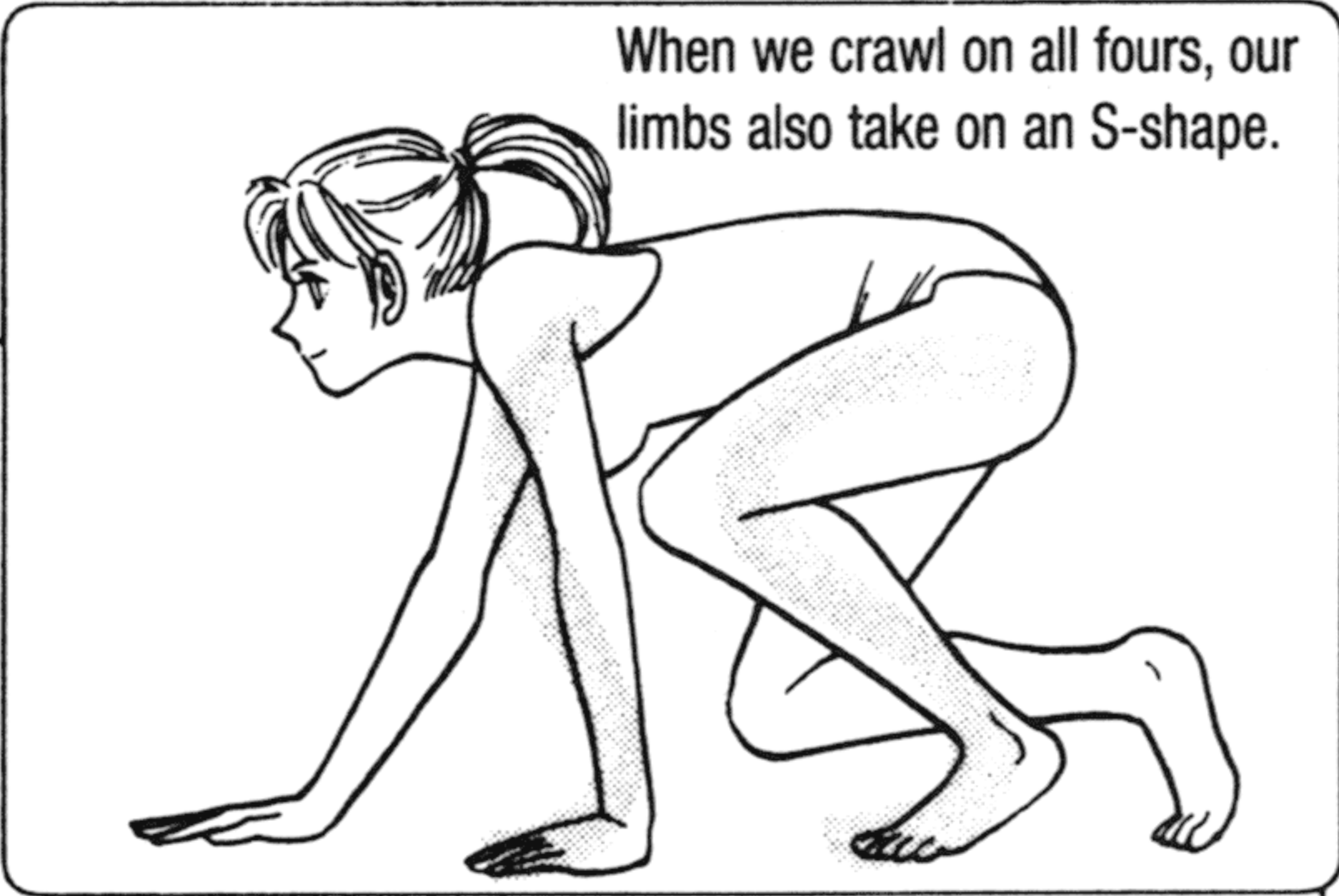
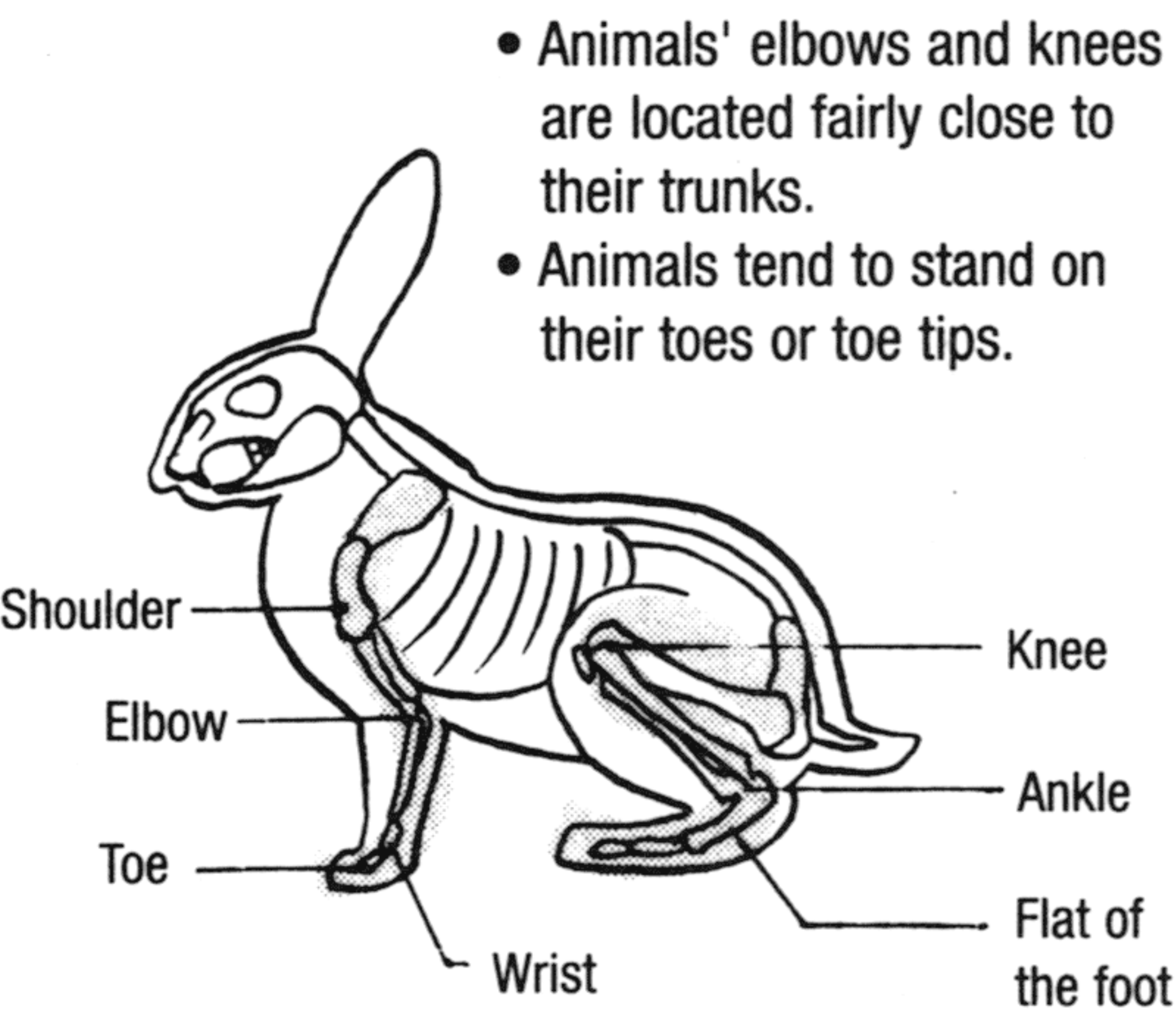
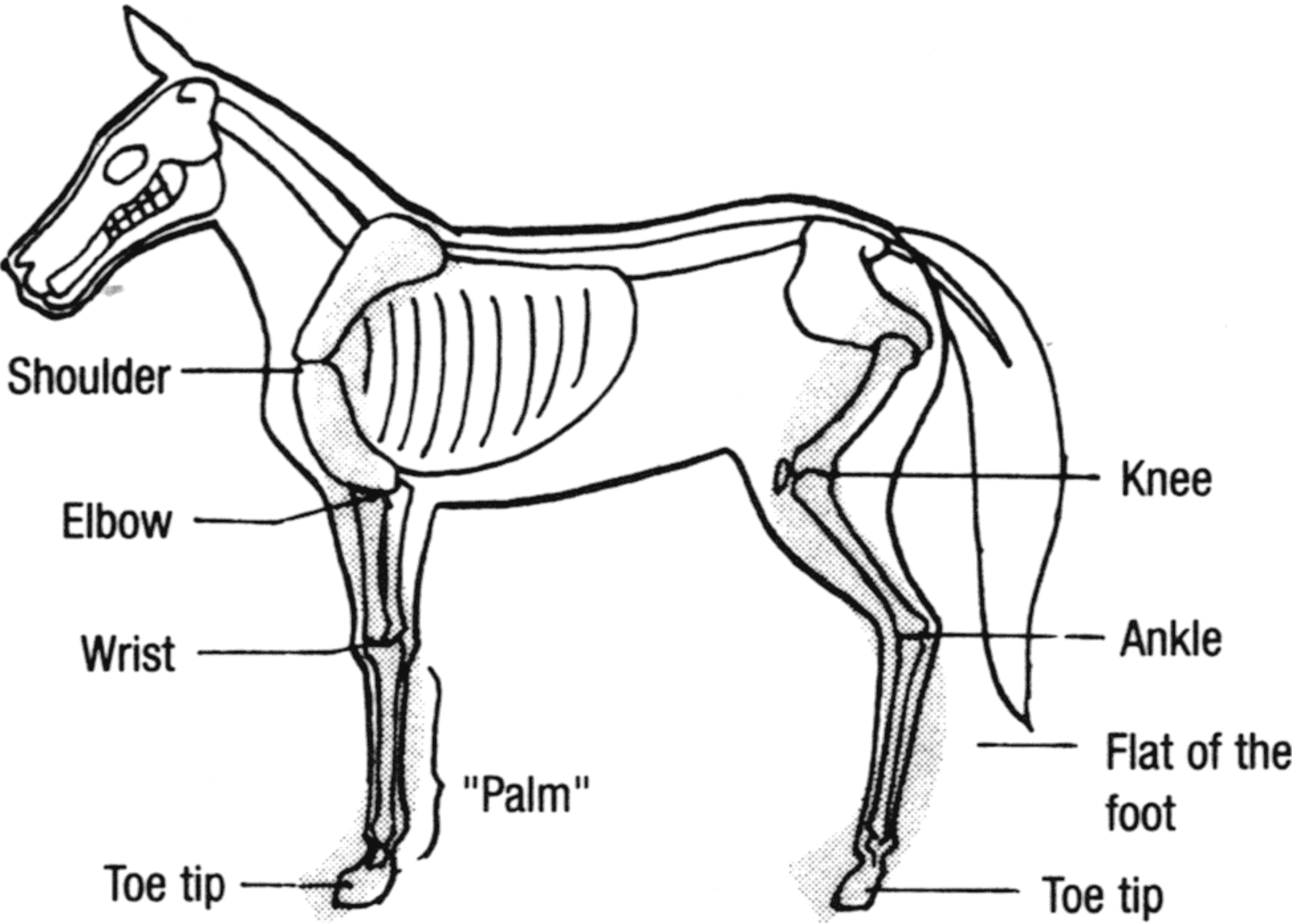
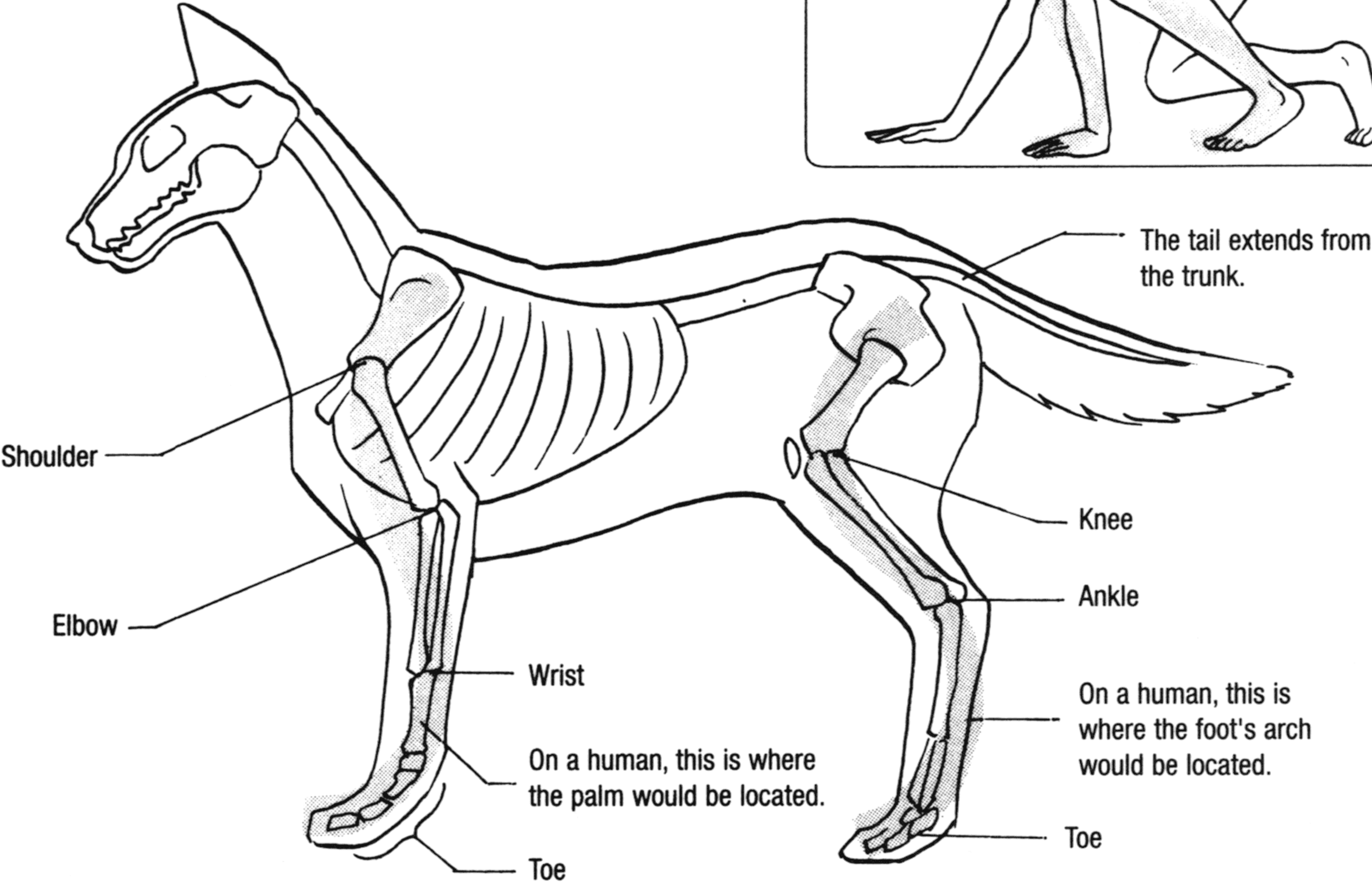
Elbow

Wrist

On a human, this is where the foot's arch would be located.

On a human, this is where the palm would be located.

Toe

Toe

- Animals' elbows and knees are located fairly close to their trunks.
- Animals tend to stand on their toes or toe tips.

Shoulder

Elbow

Wrist

"Palm"

Toe tip

Knee

Ankle

Flat of the foot

Toe tip

Shoulder

Elbow

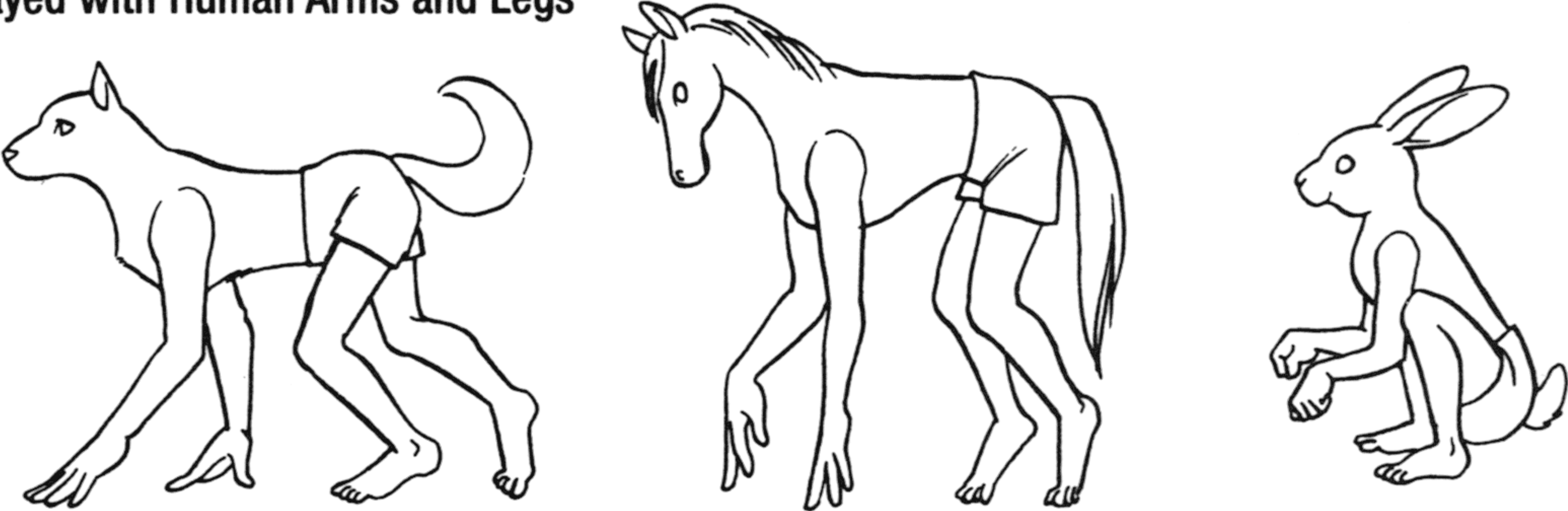
Toe

Wrist

Knee

Ankle

Flat of the foot

Animals Portrayed with Human Arms and Legs

Sample Drawing: Starting with a Diagram

S-Curves

Give S-curves to the matchsticks you use for the skeletal structure. This is the secret to successfully drawing animals.

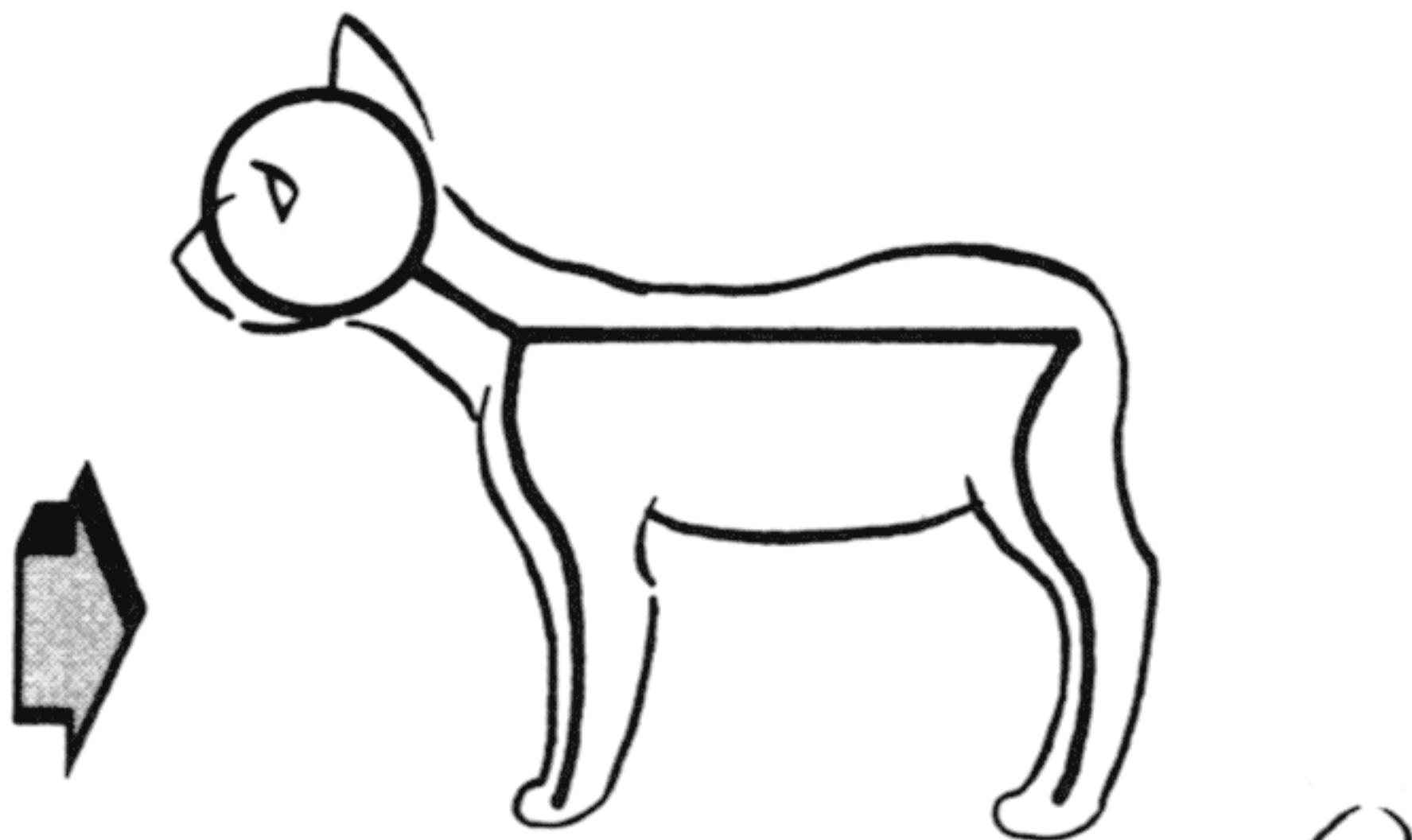
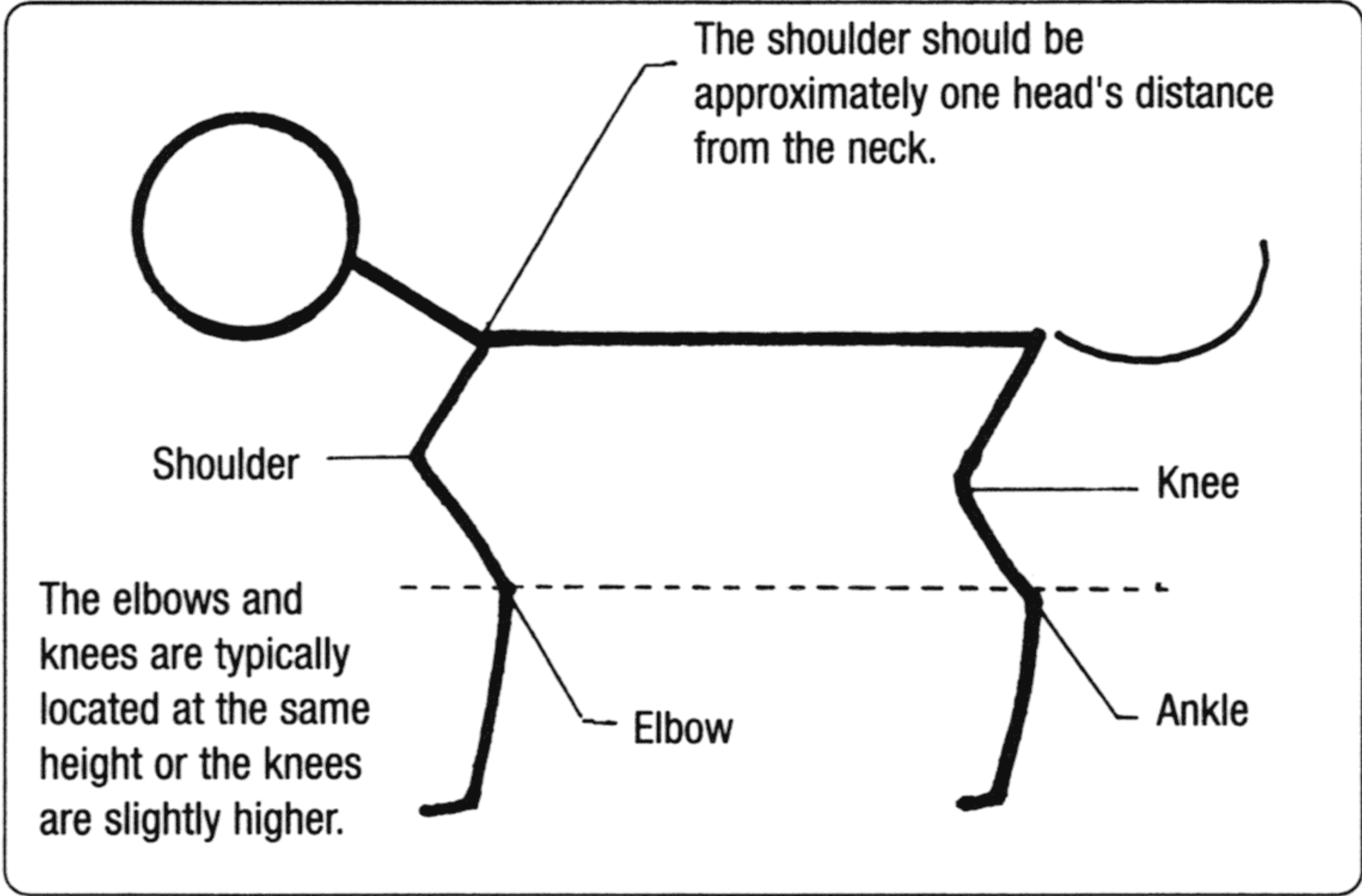
The shoulder should be approximately one head's distance from the neck.

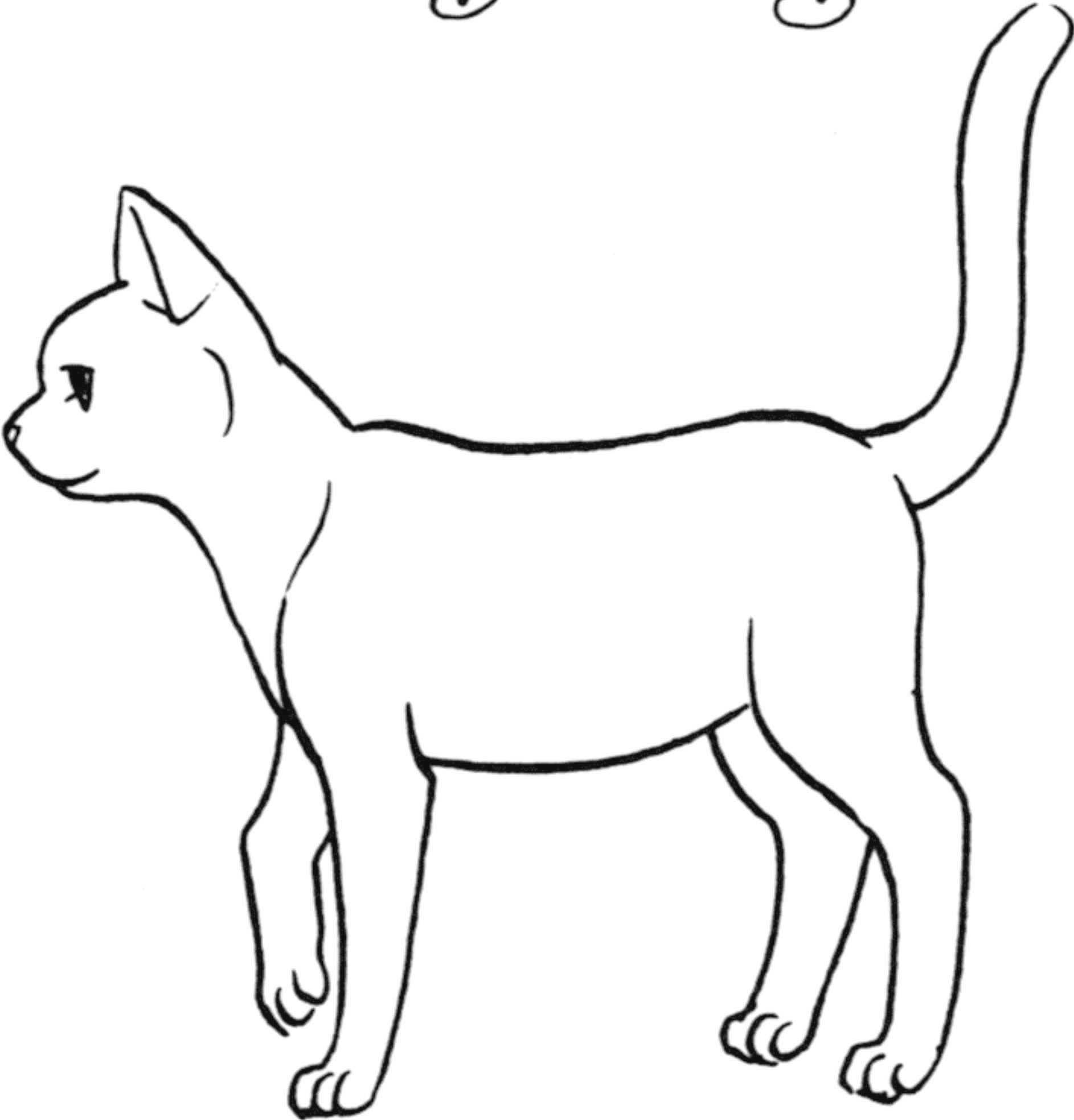
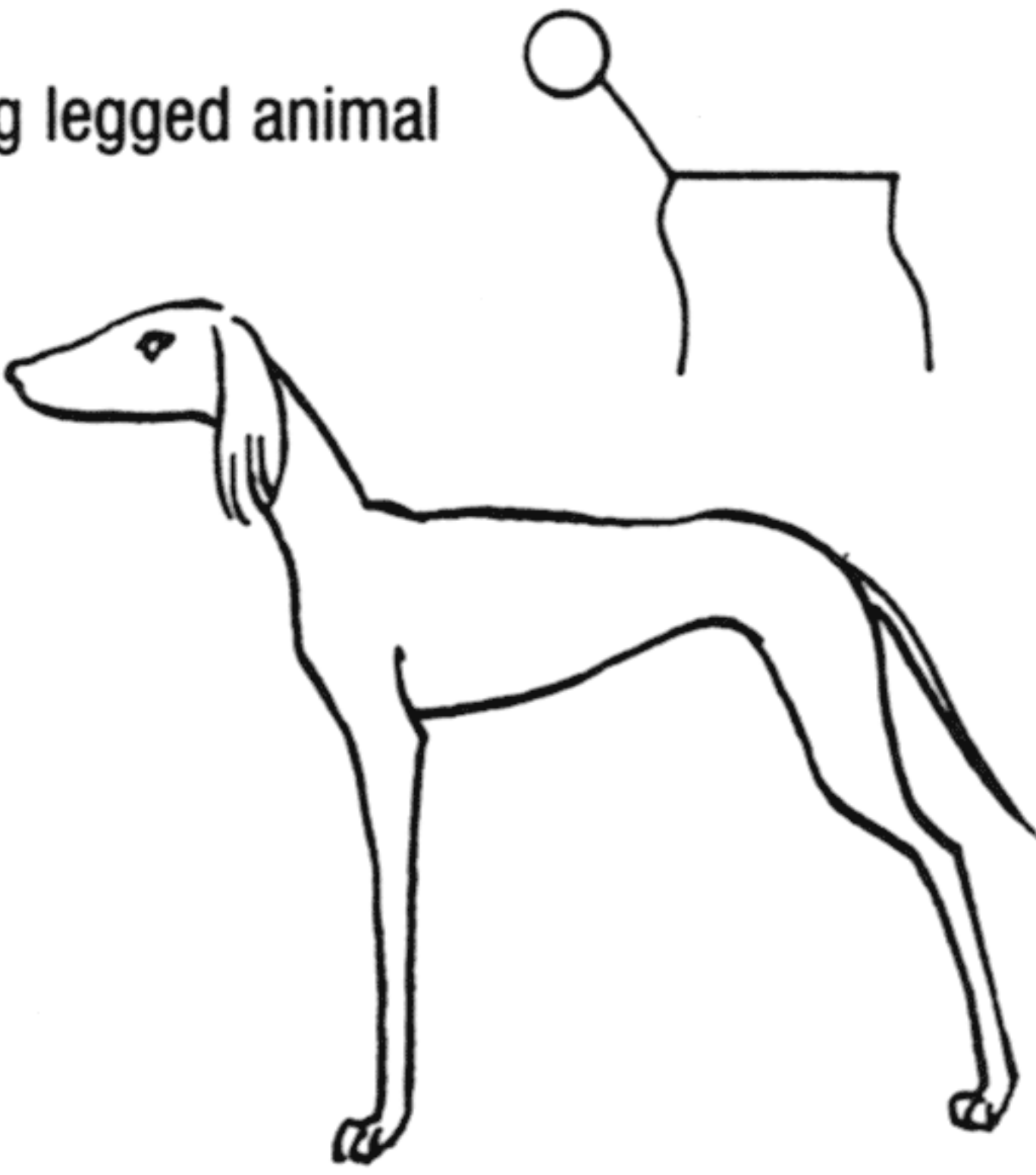
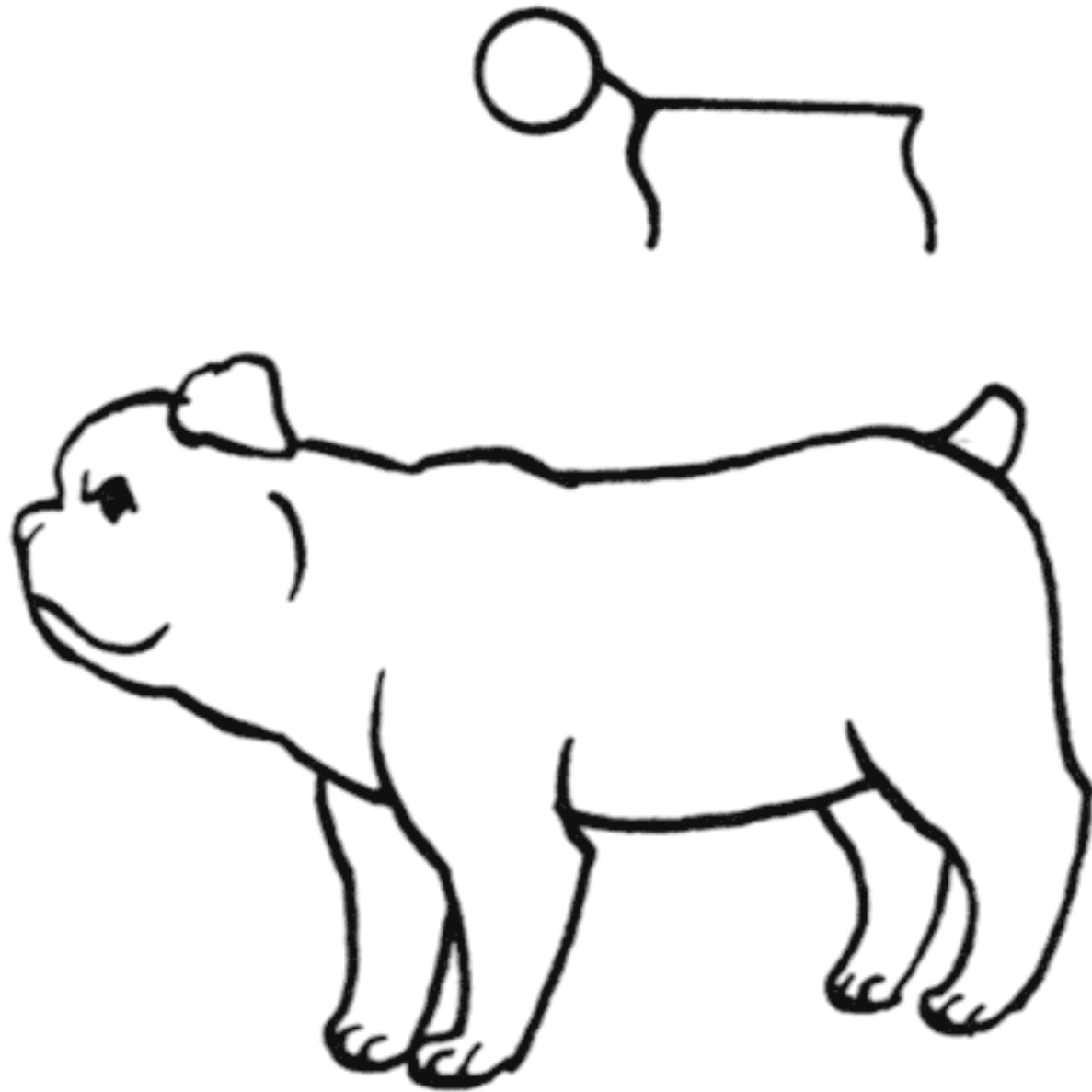
Shoulder

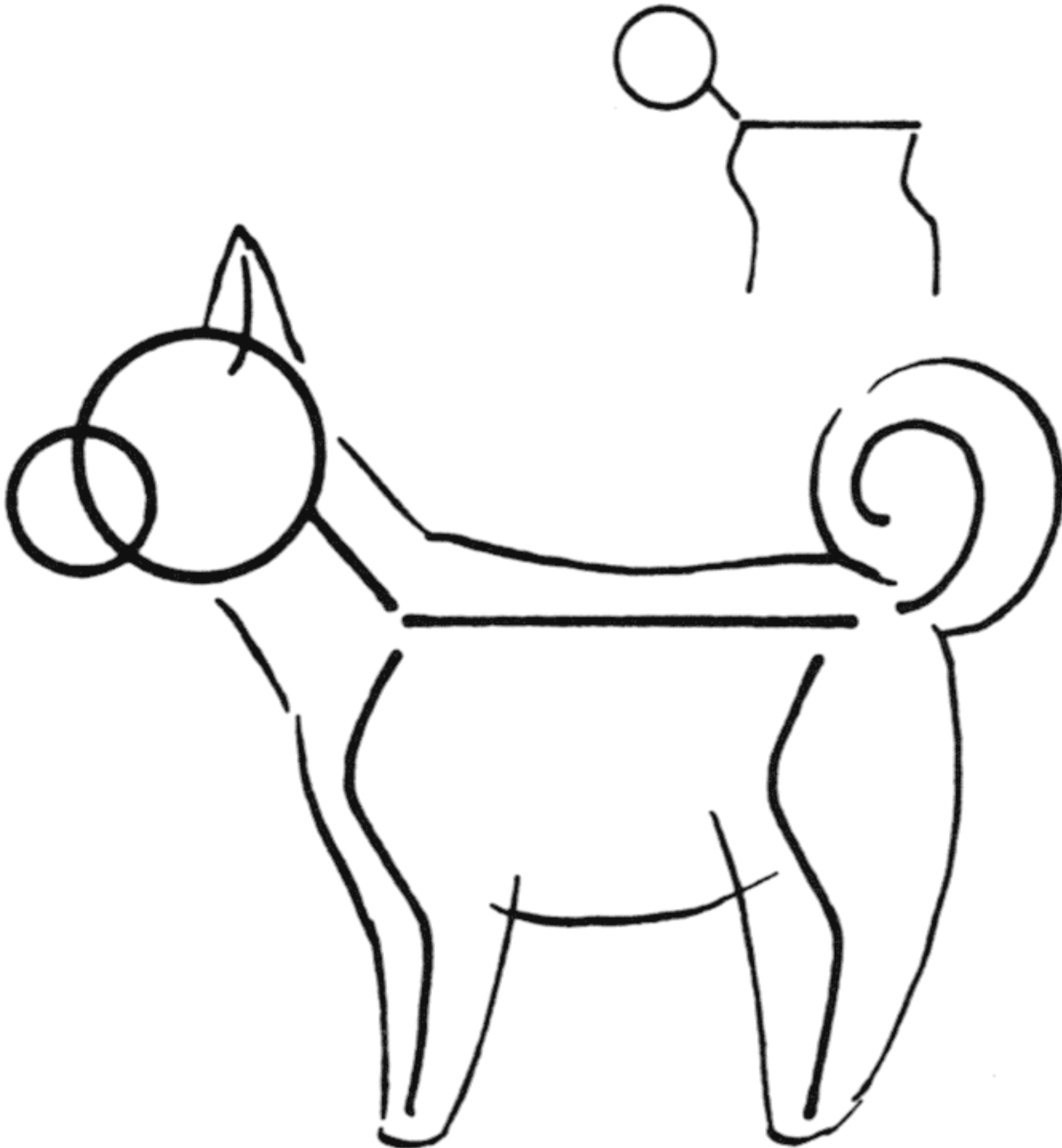
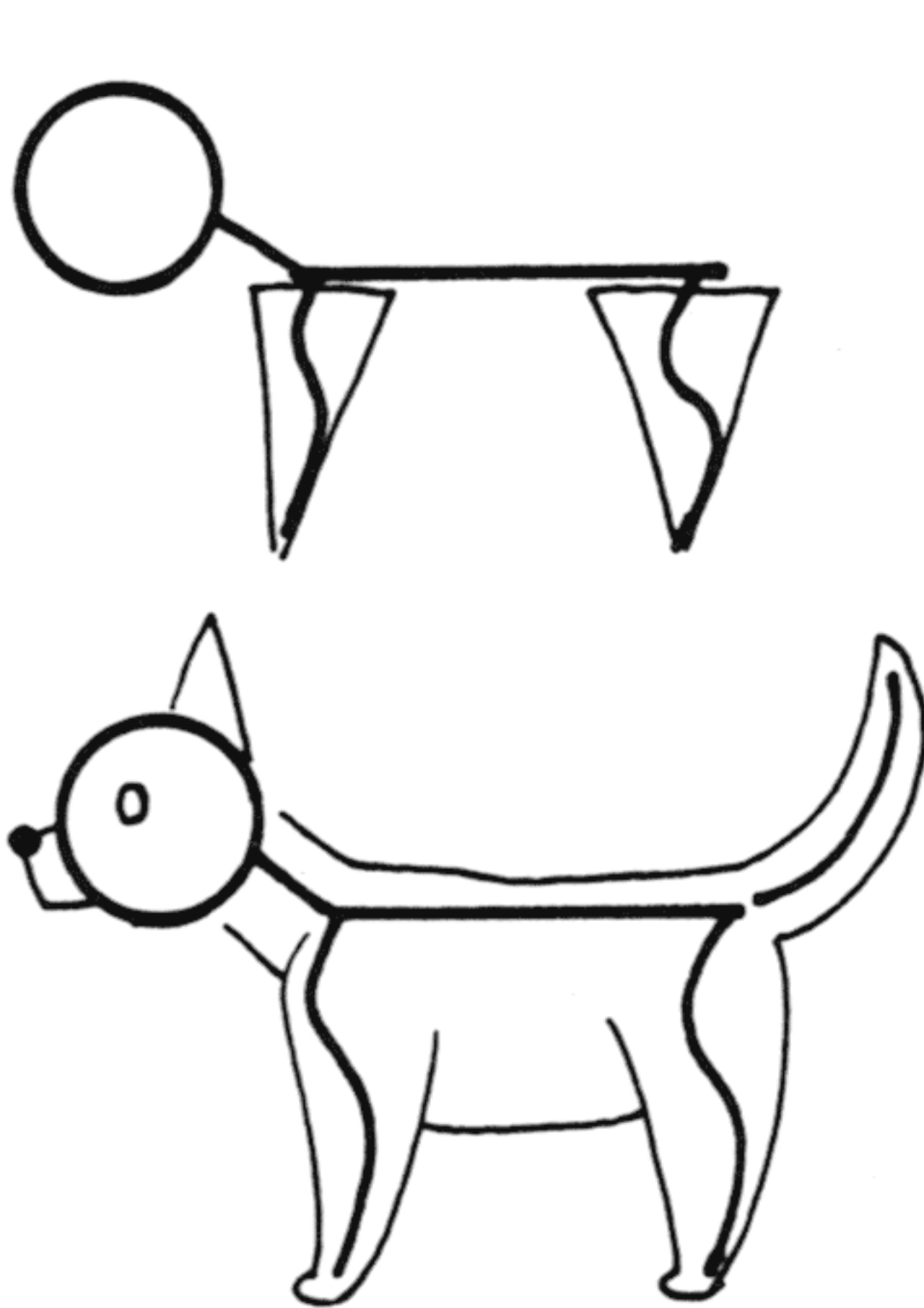
Knee

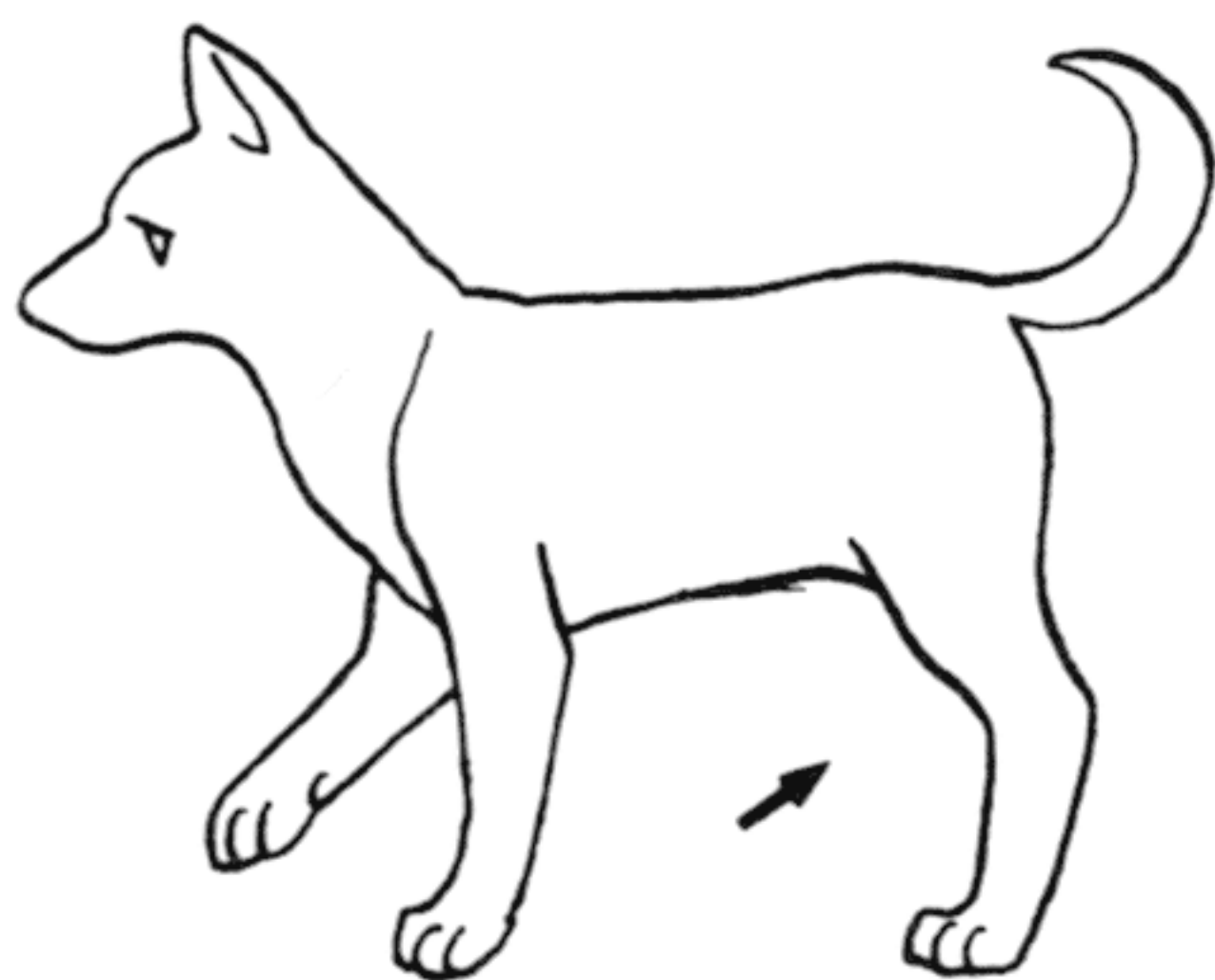
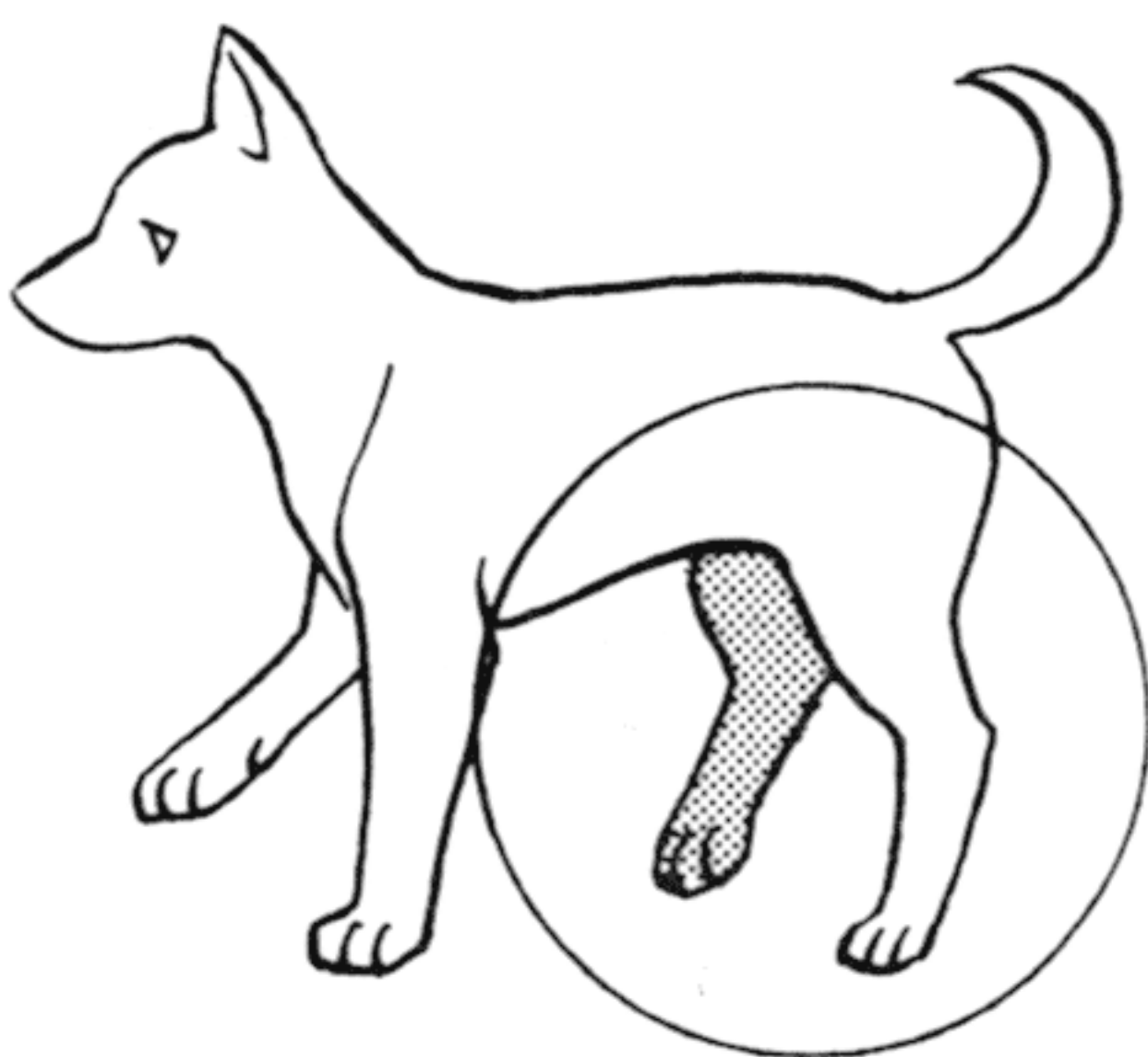
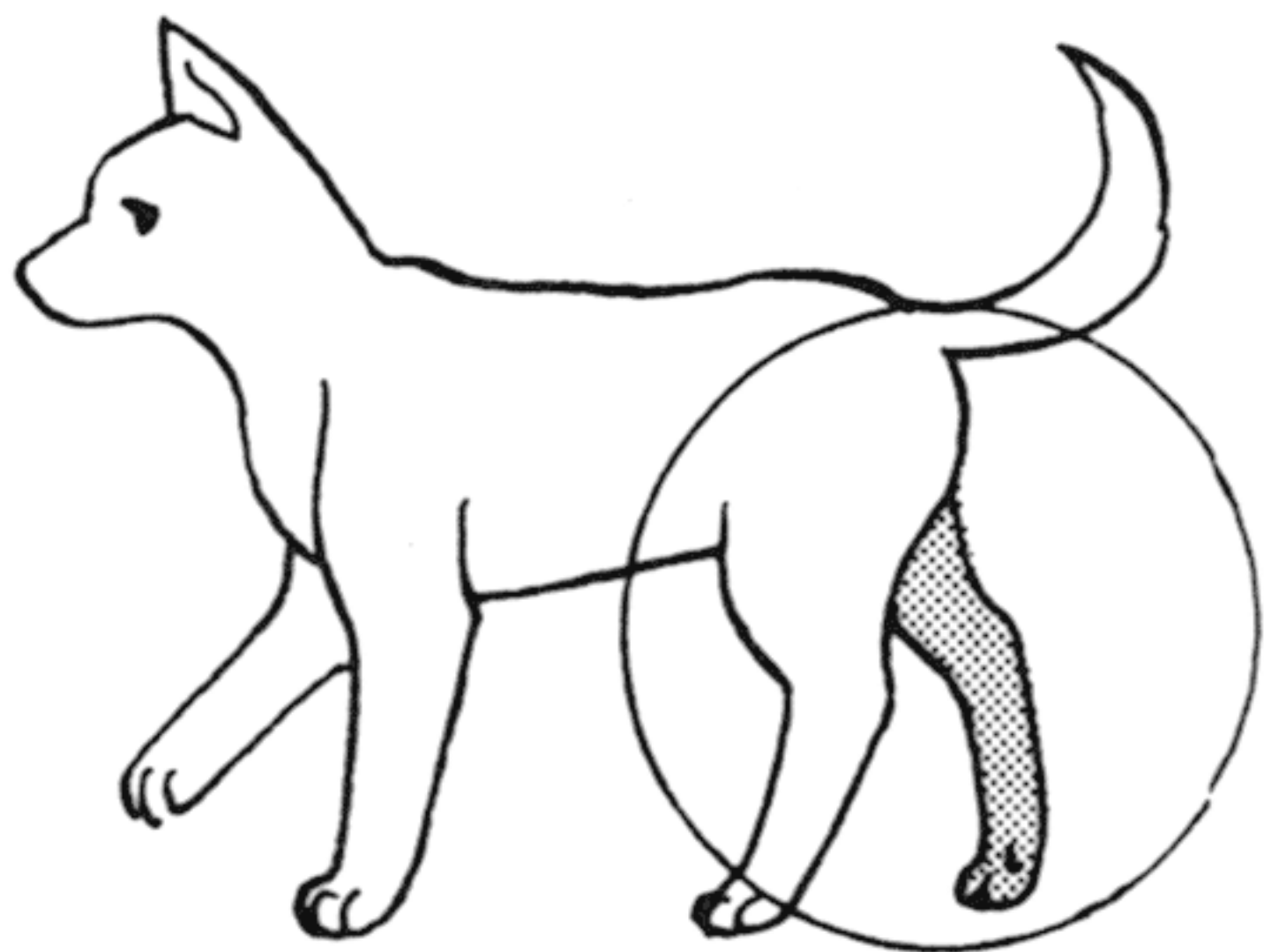
The elbows and knees are typically located at the same height or the knees are slightly higher.

Elbow

Ankle

Short legged animal

Long legged animal

S-Curves and Triangles

If you run into difficulties sketching the legs, draw a triangle with an S inside. This should make things easier.

Triangles help reproduce the feel of fluffy puppy legs.

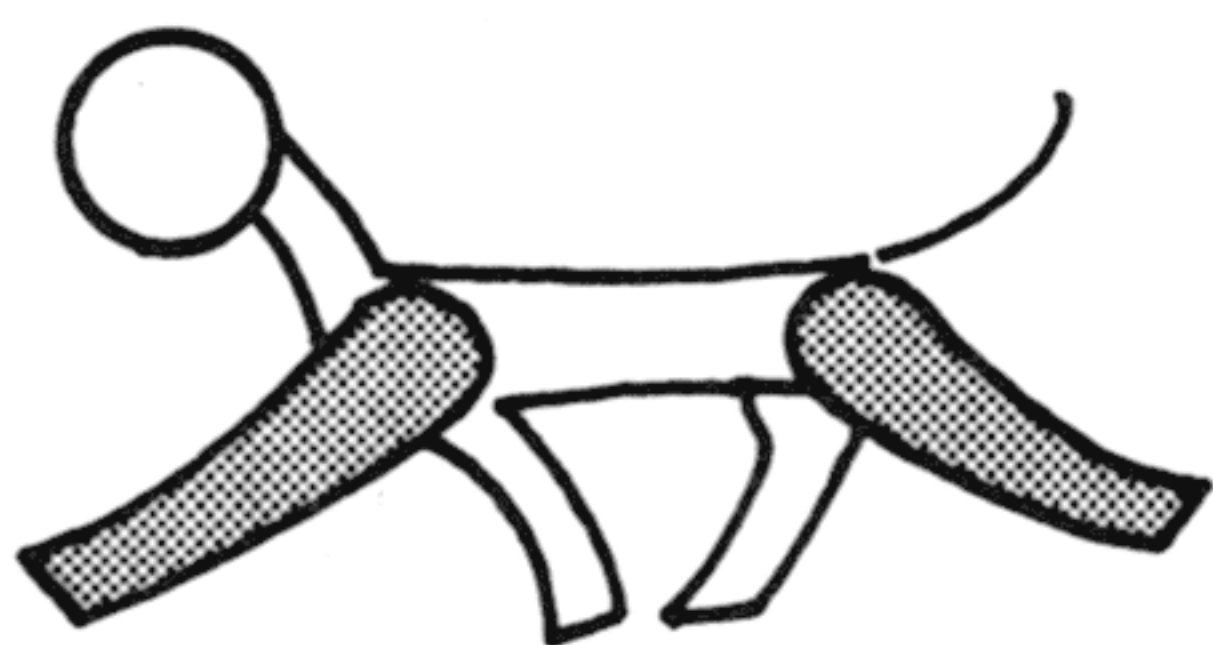
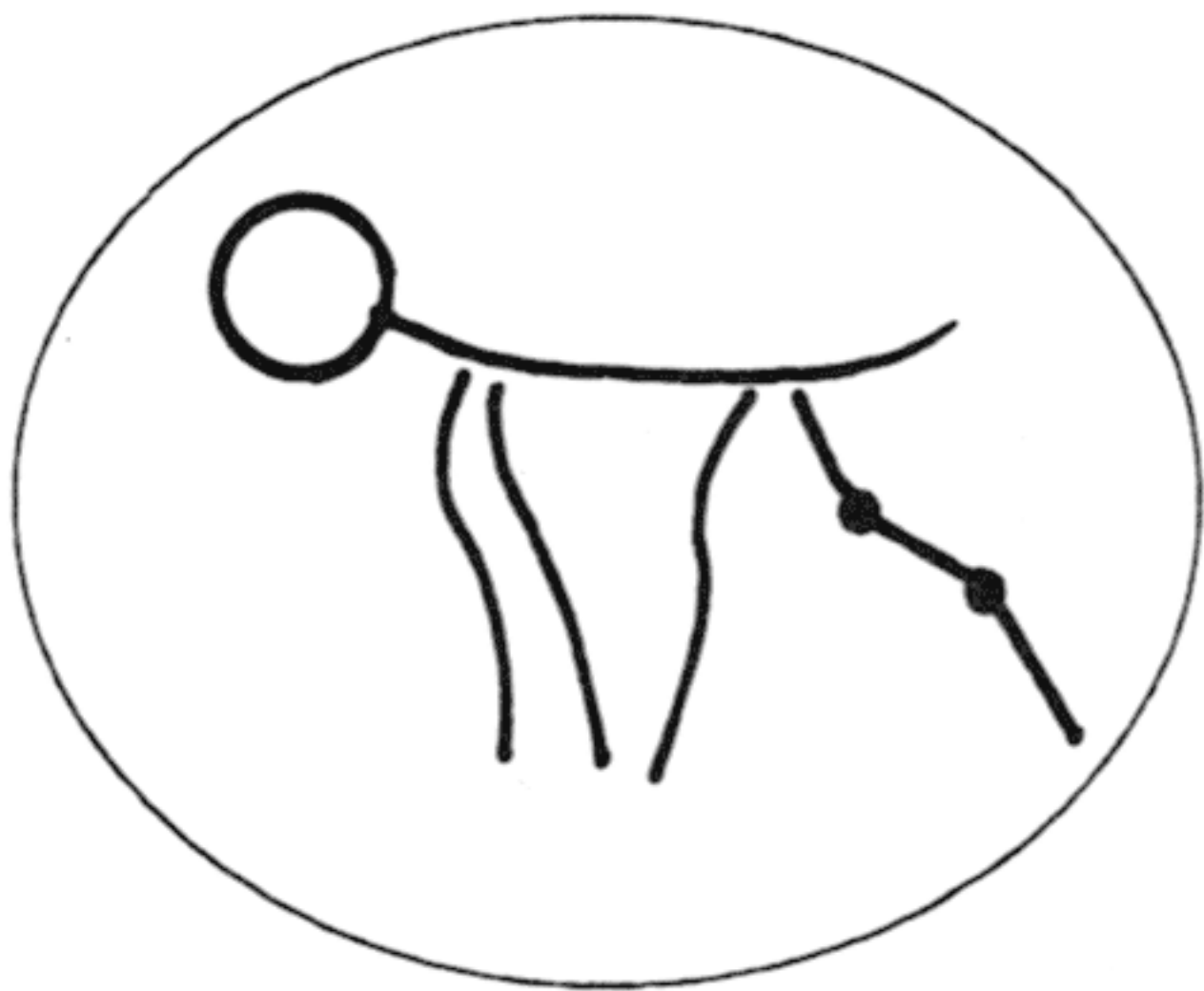
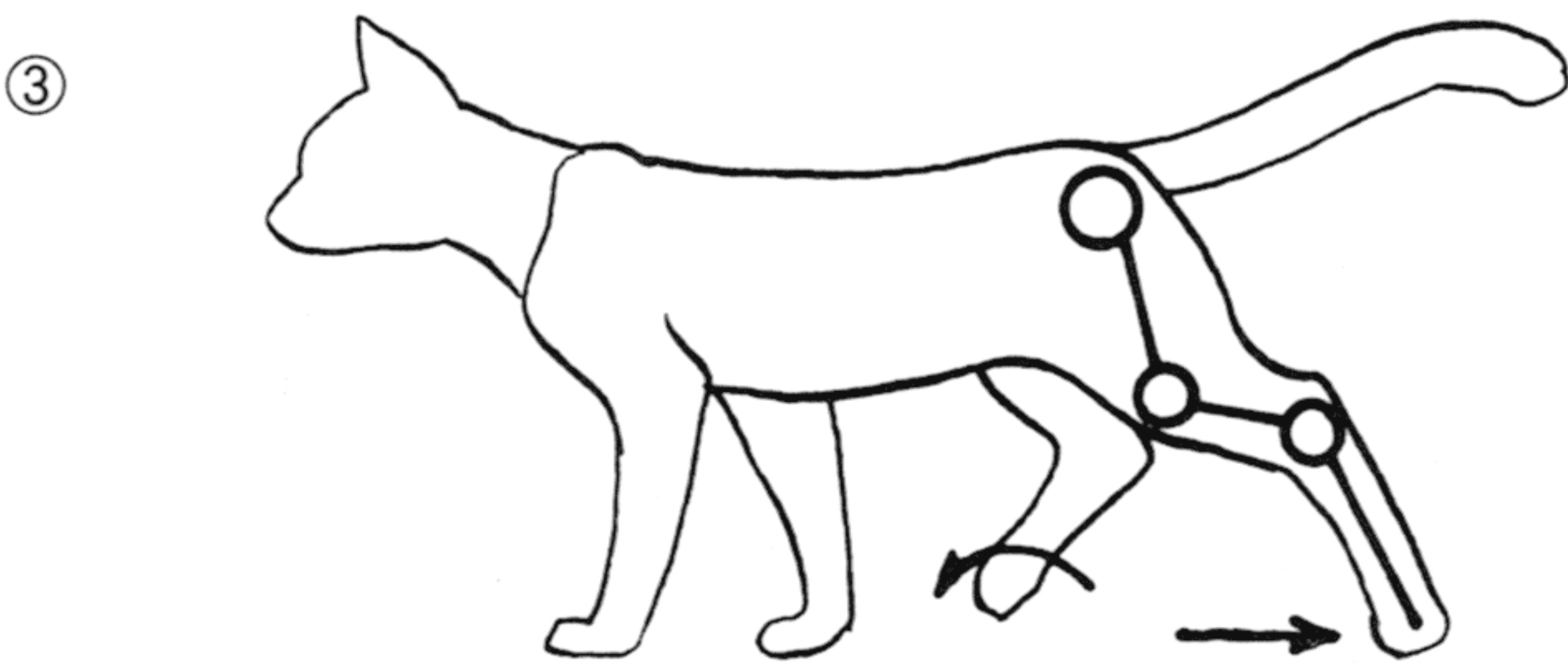
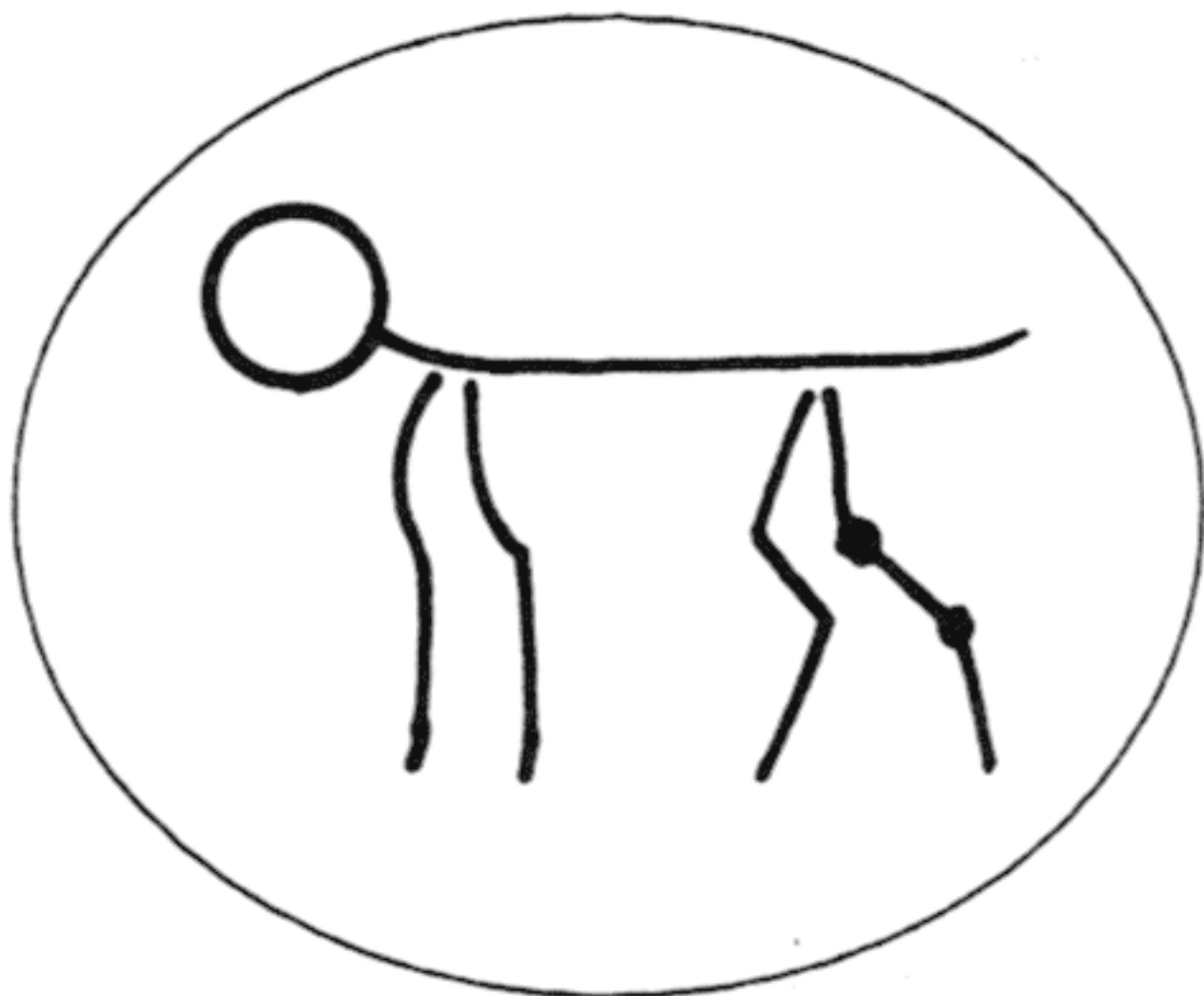
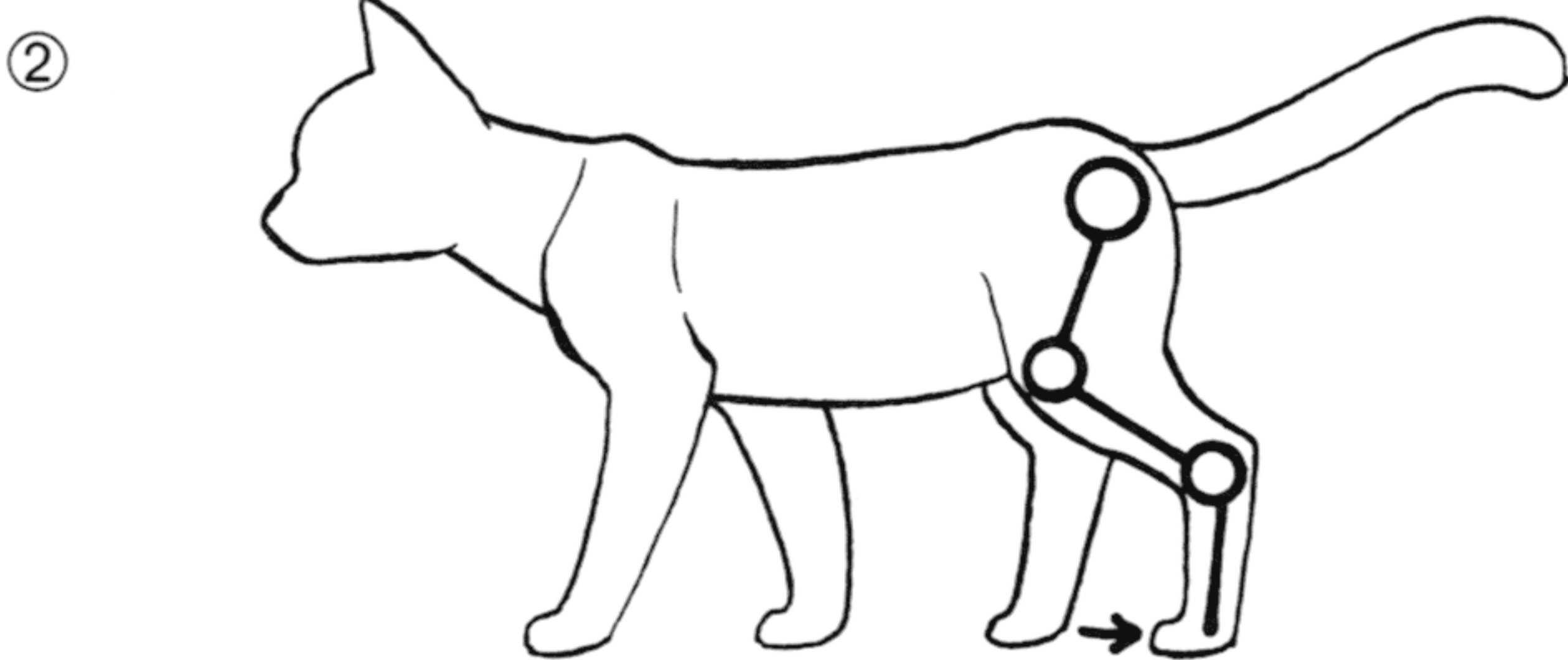
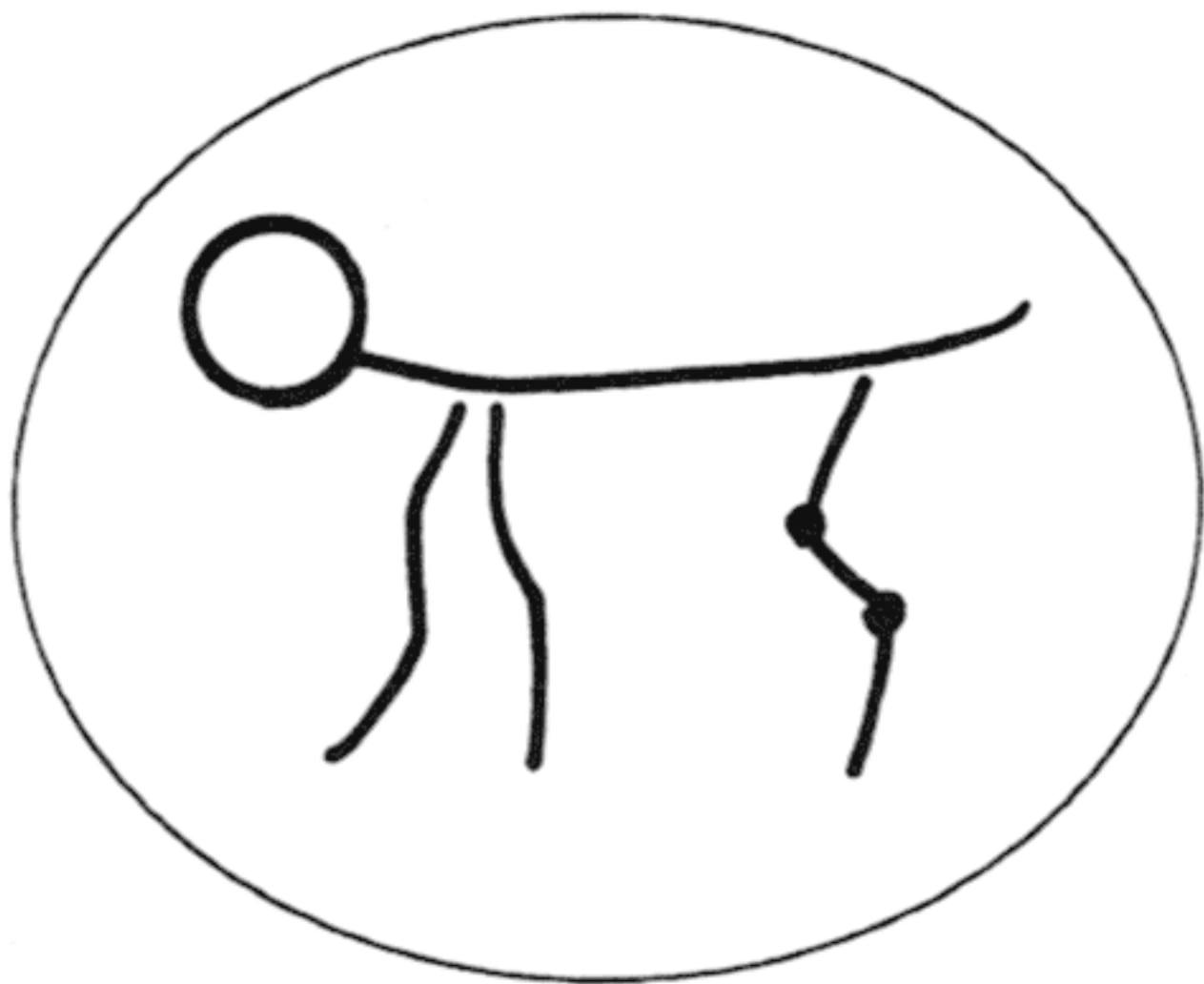
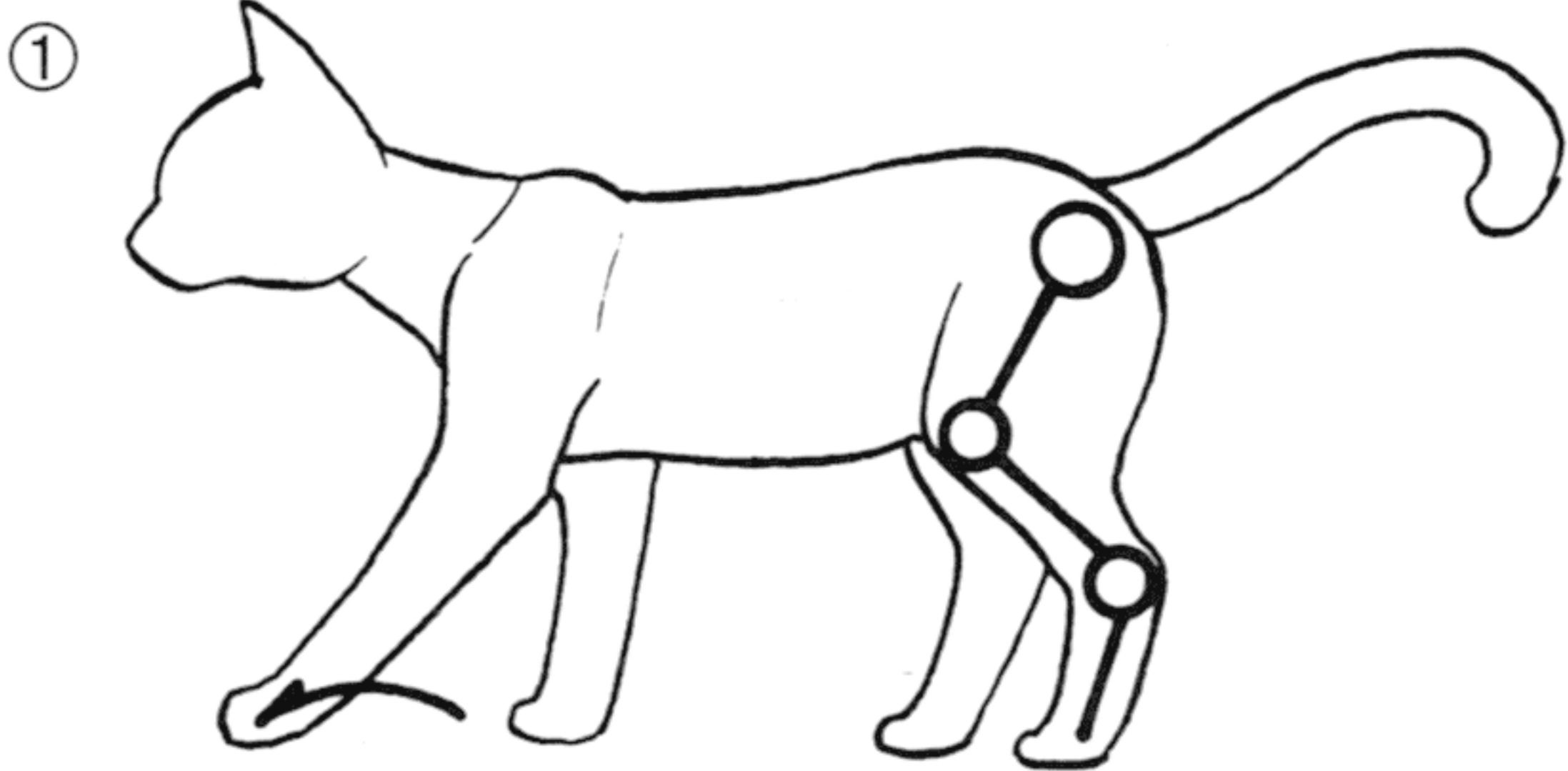
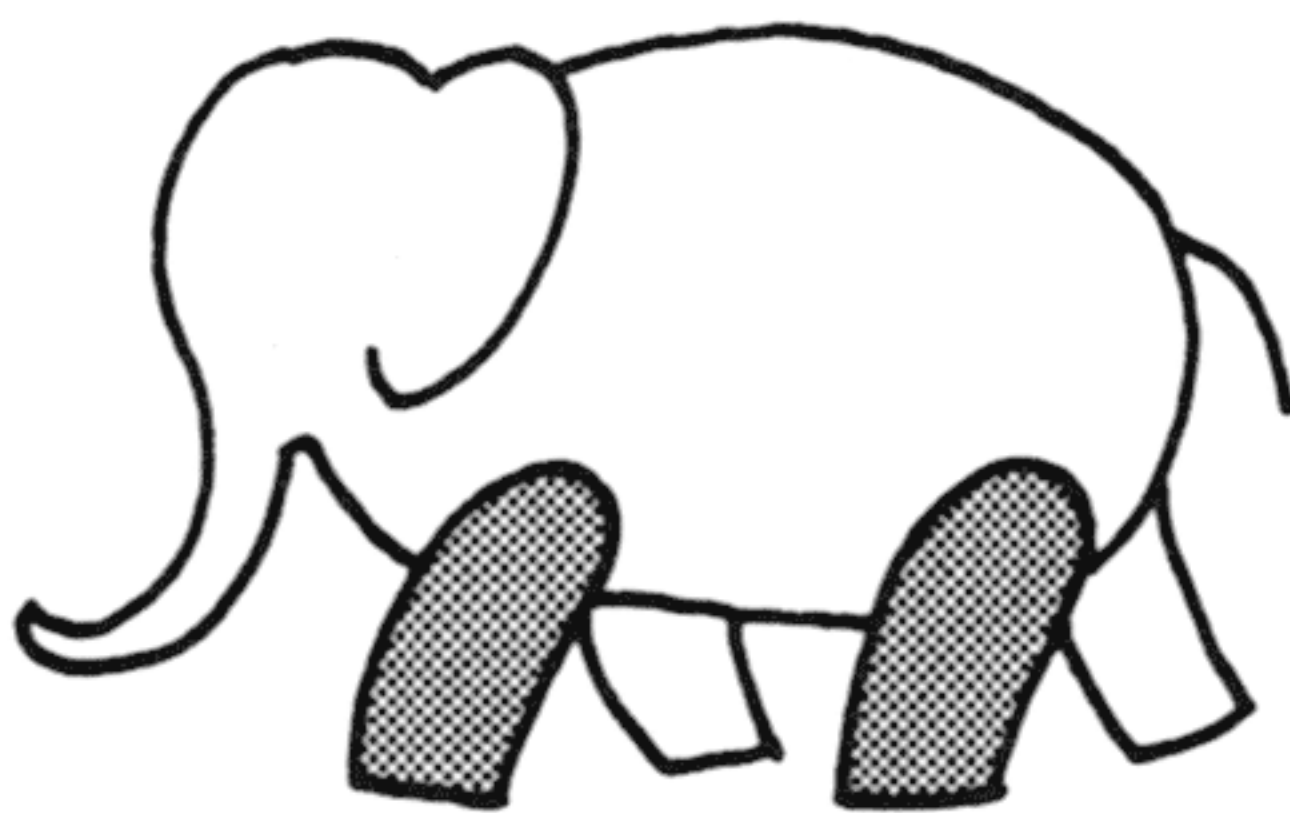
Taking a Step

Problem: Where does the right hind leg go?

A) Figure with the right hind leg forward.

B) Figure with the right hind leg back.

Stages in Leg Movement

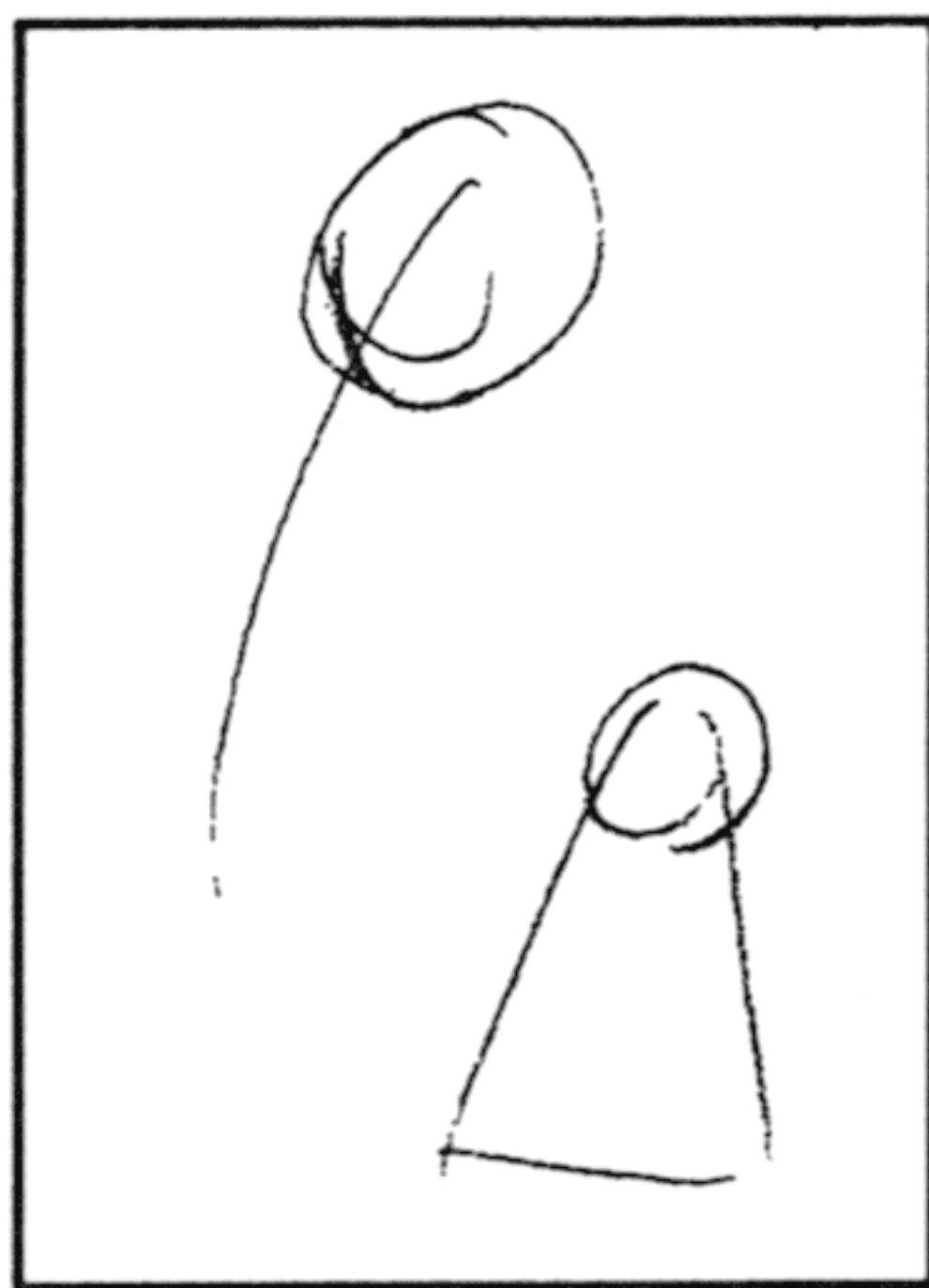
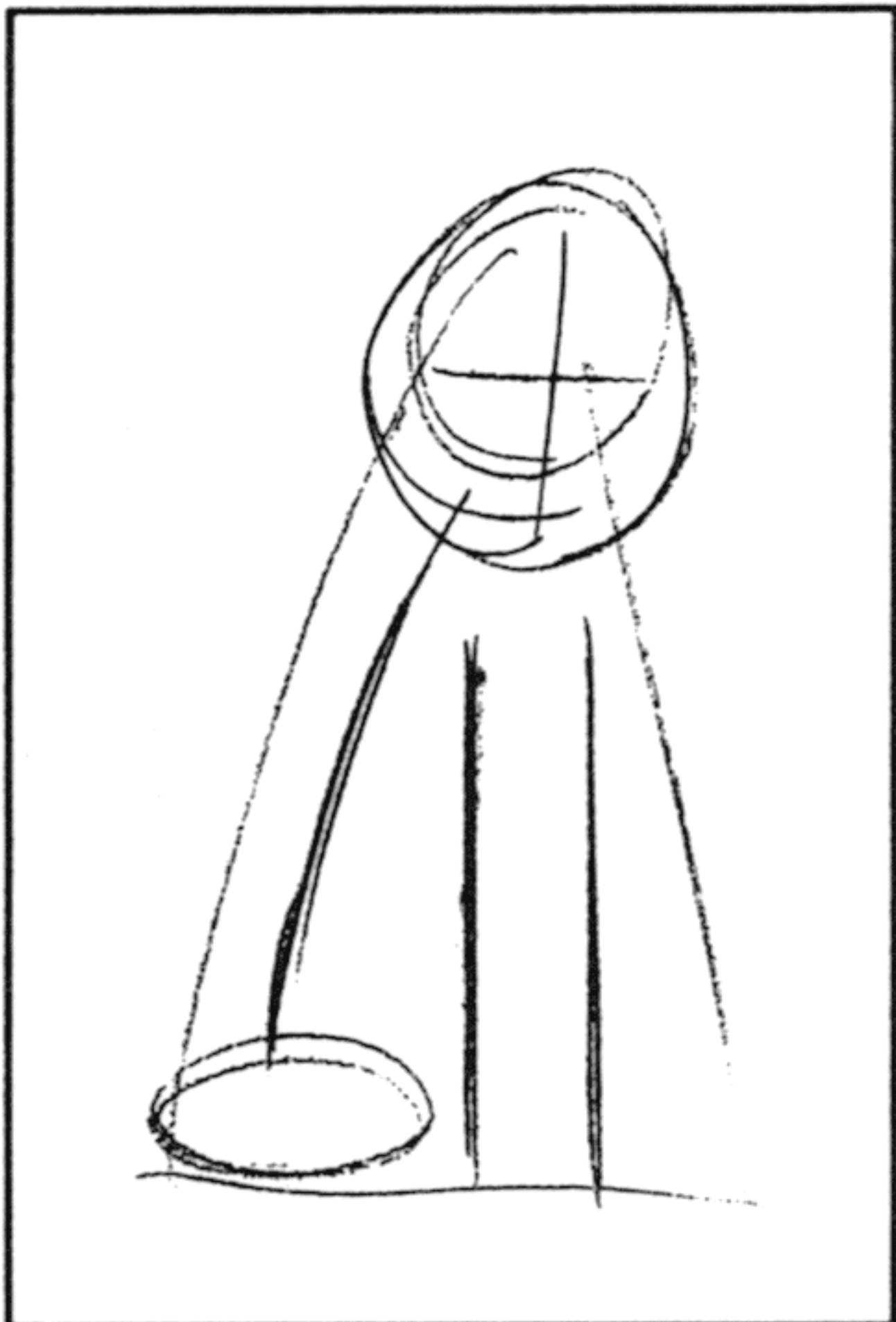
Try to memorize how the S-curve of the hind legs change.

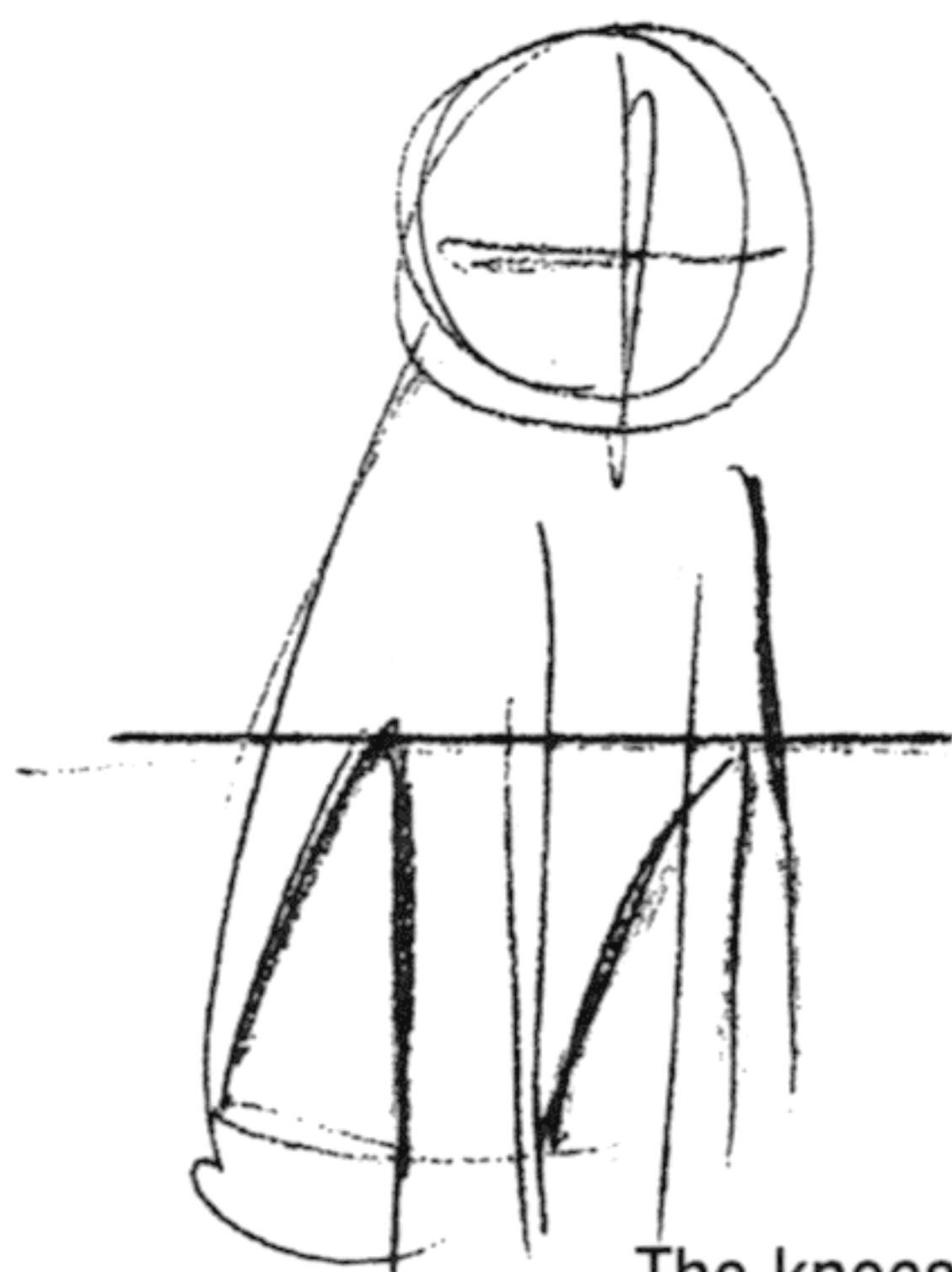
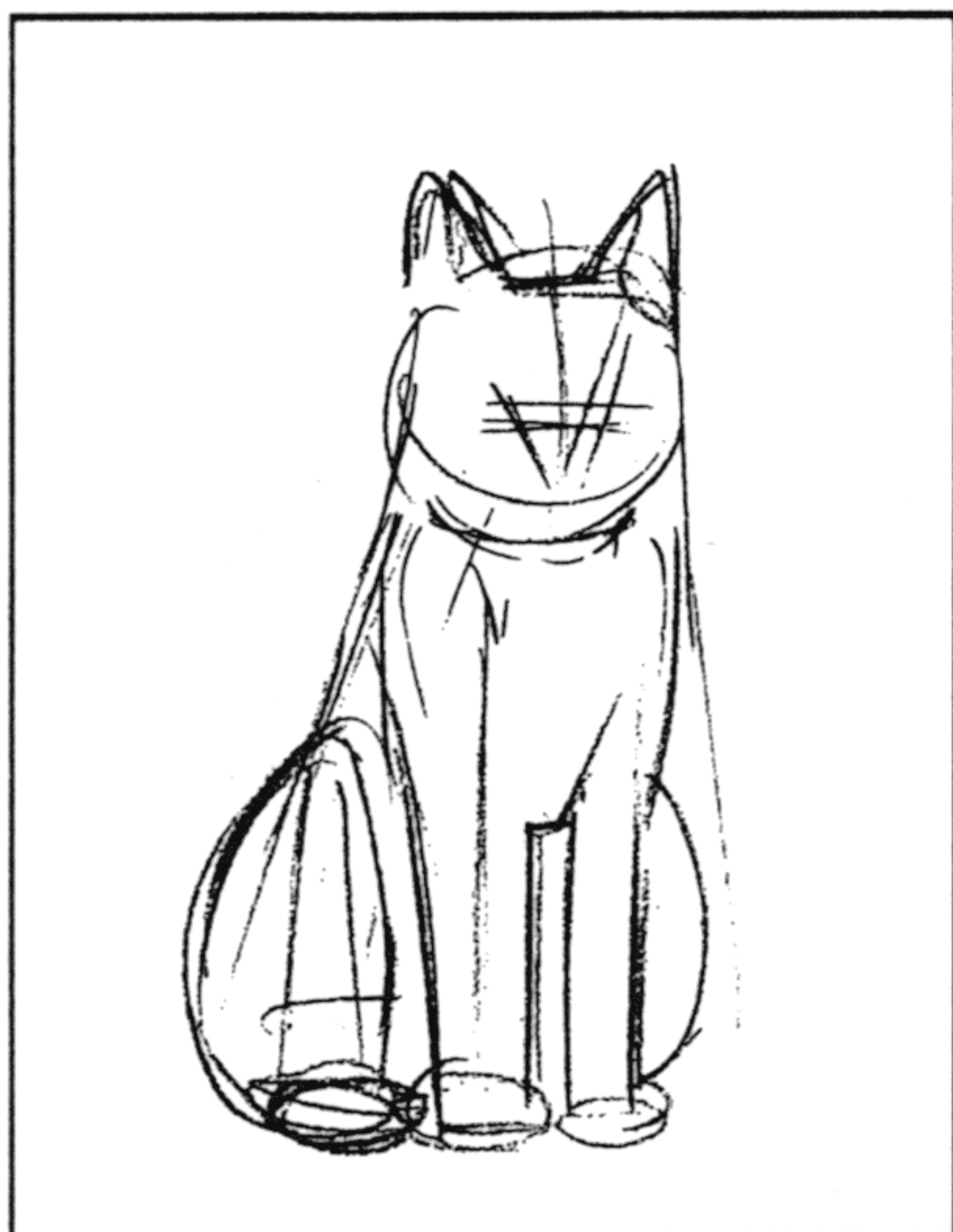
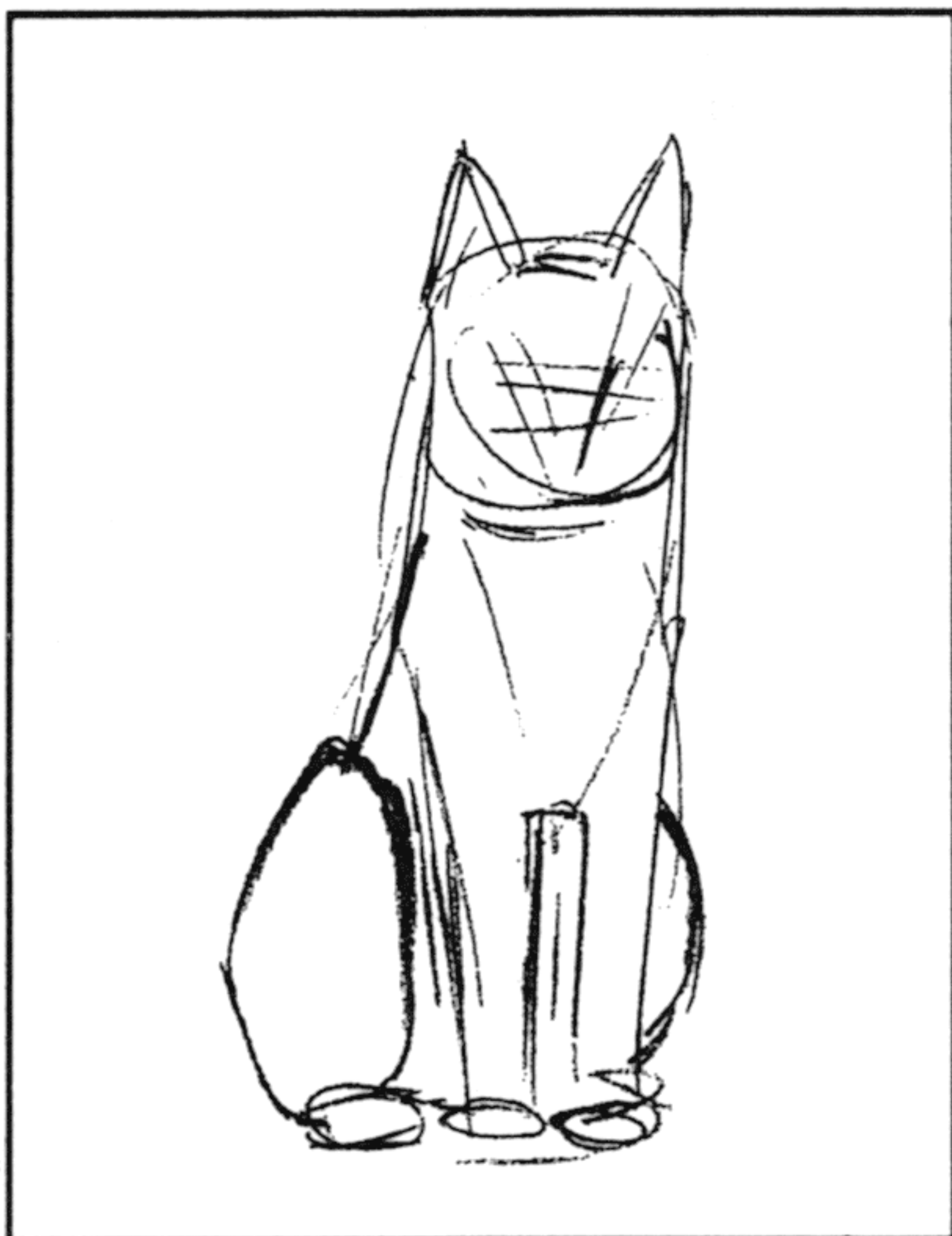
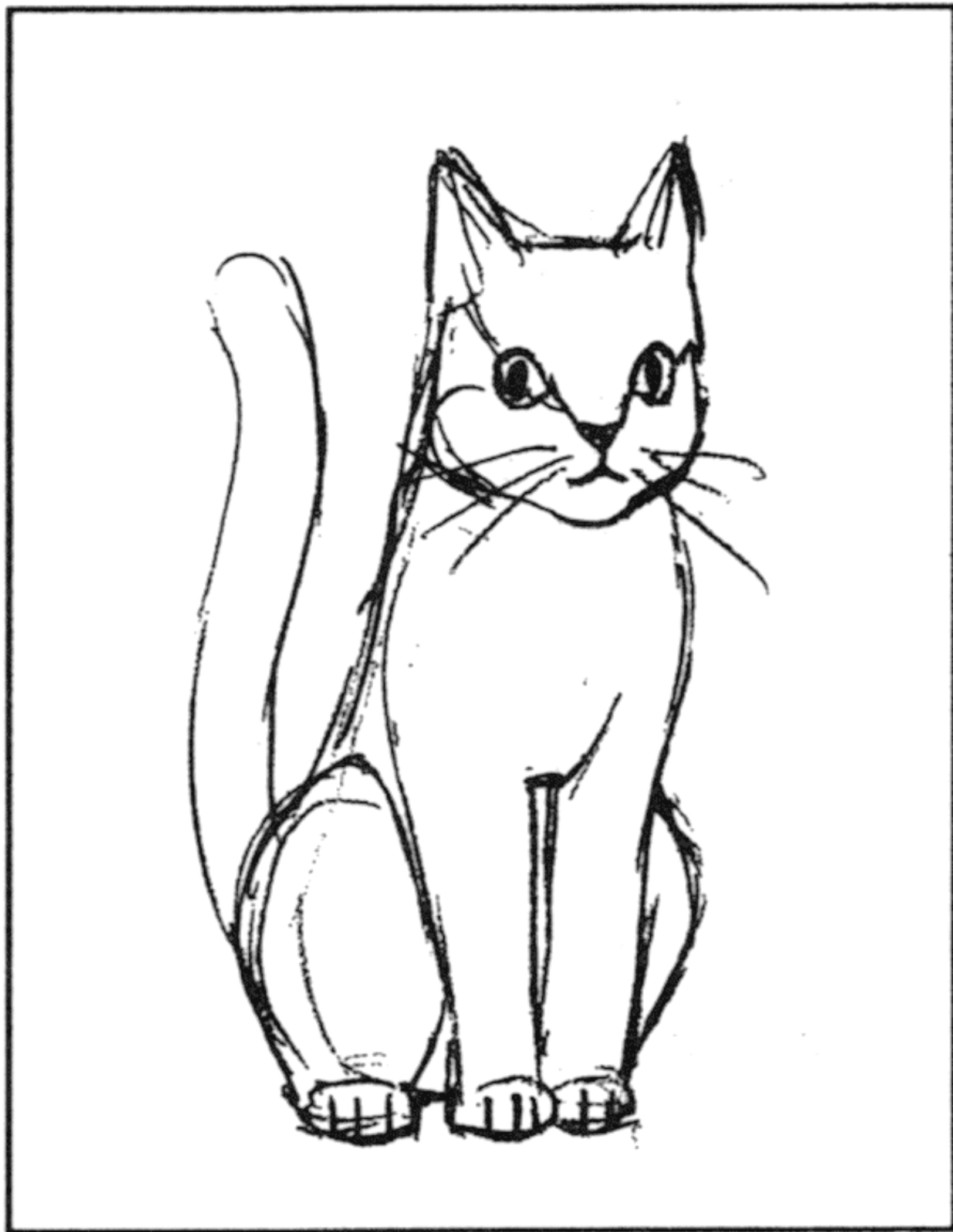
①

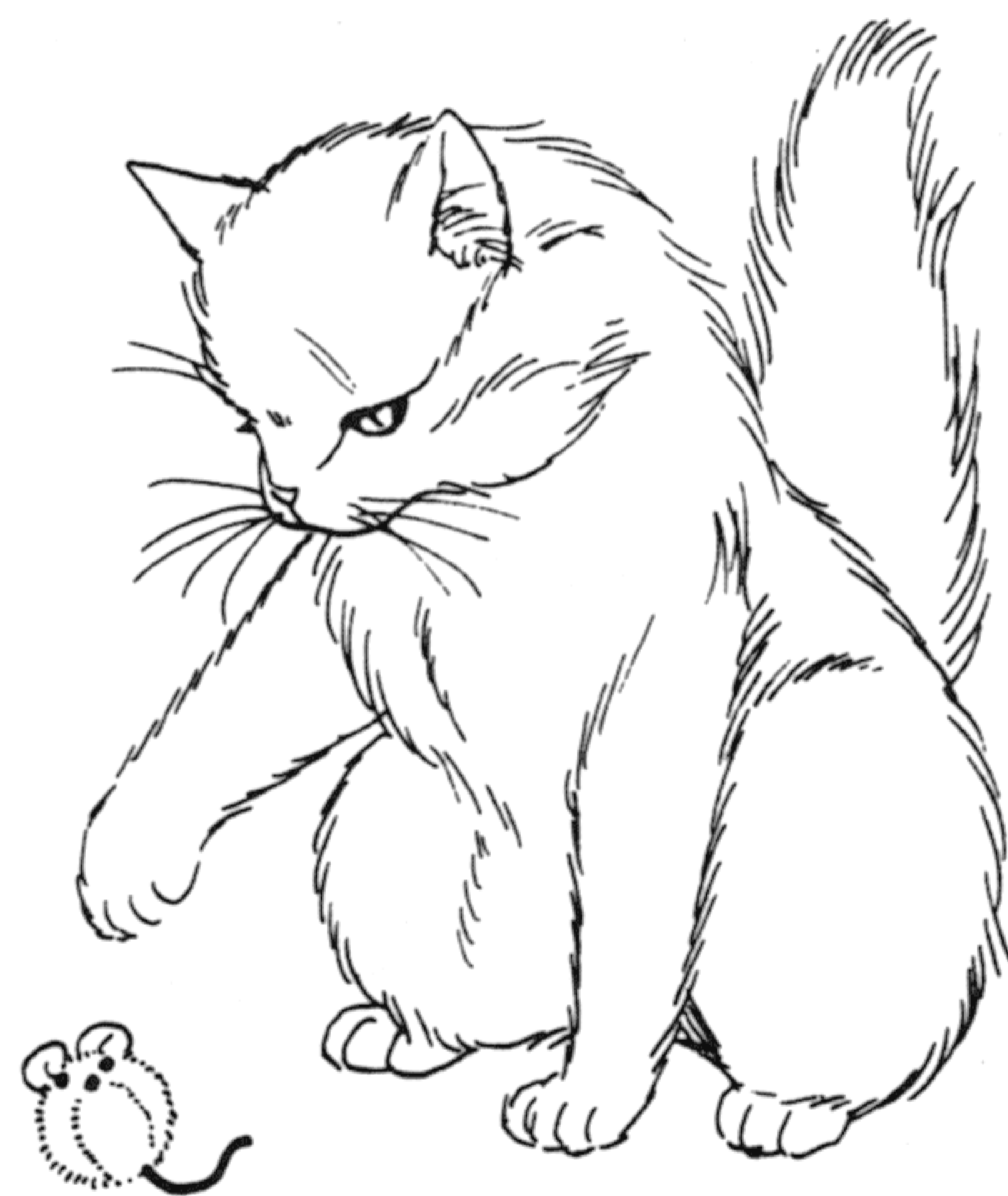
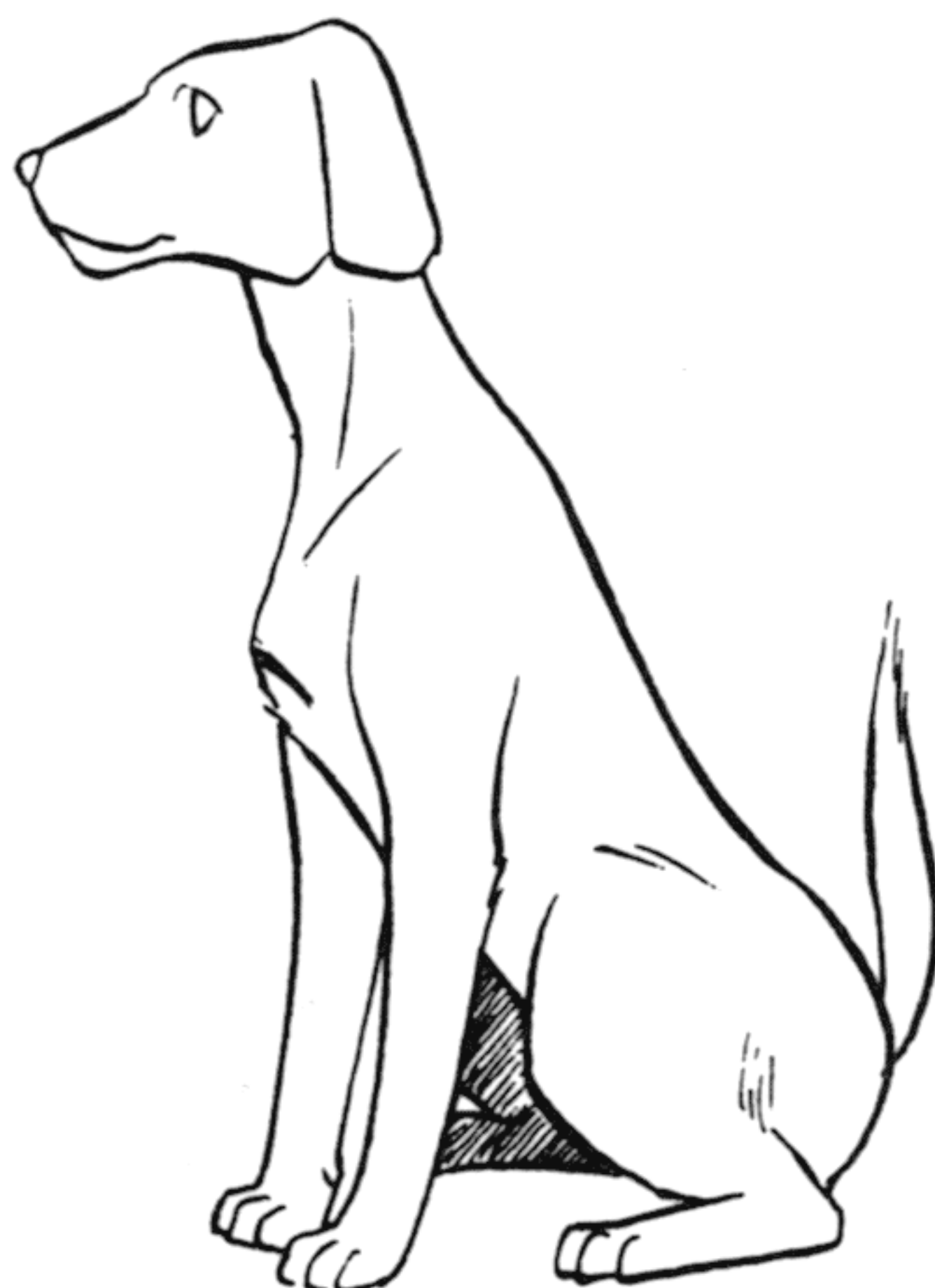
②

③

The legs of dogs, cats, and horses take on a wide triangular shape.

The legs of elephants and camels do not form a wide triangle.

Hind Legs in a Seated Position

he key is to determine the knees' locations.

① Sketch a diagram of the overall shape.

② Sketch a layout of the front legs and pelvis.

③ When sketching the hind legs, be conscious of the legs' S-curve, which will determine the knees' location, despite that this curve is not evident in this position.

The knees are located midway along the body.

④ Roughly sketch in the outer contours. Make the rear (the thighs) round and plump.

⑤ Only draw precisely placed lines at the knees.

⑥ Draw the head and other body parts to finish.

Finishing Touches—Practical Application: Use hatching/diagonal lines and tone around the knees.

Seated Poses

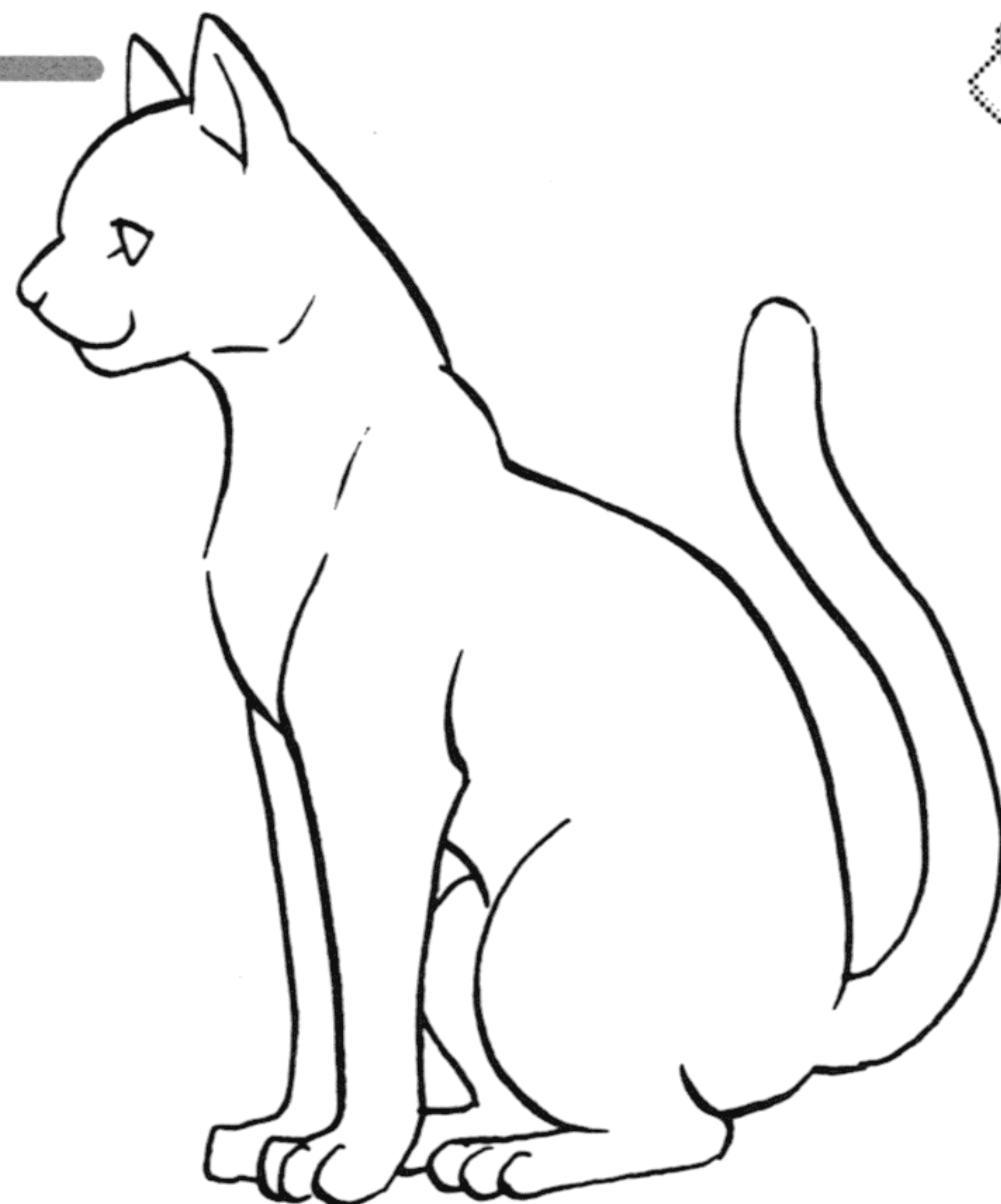
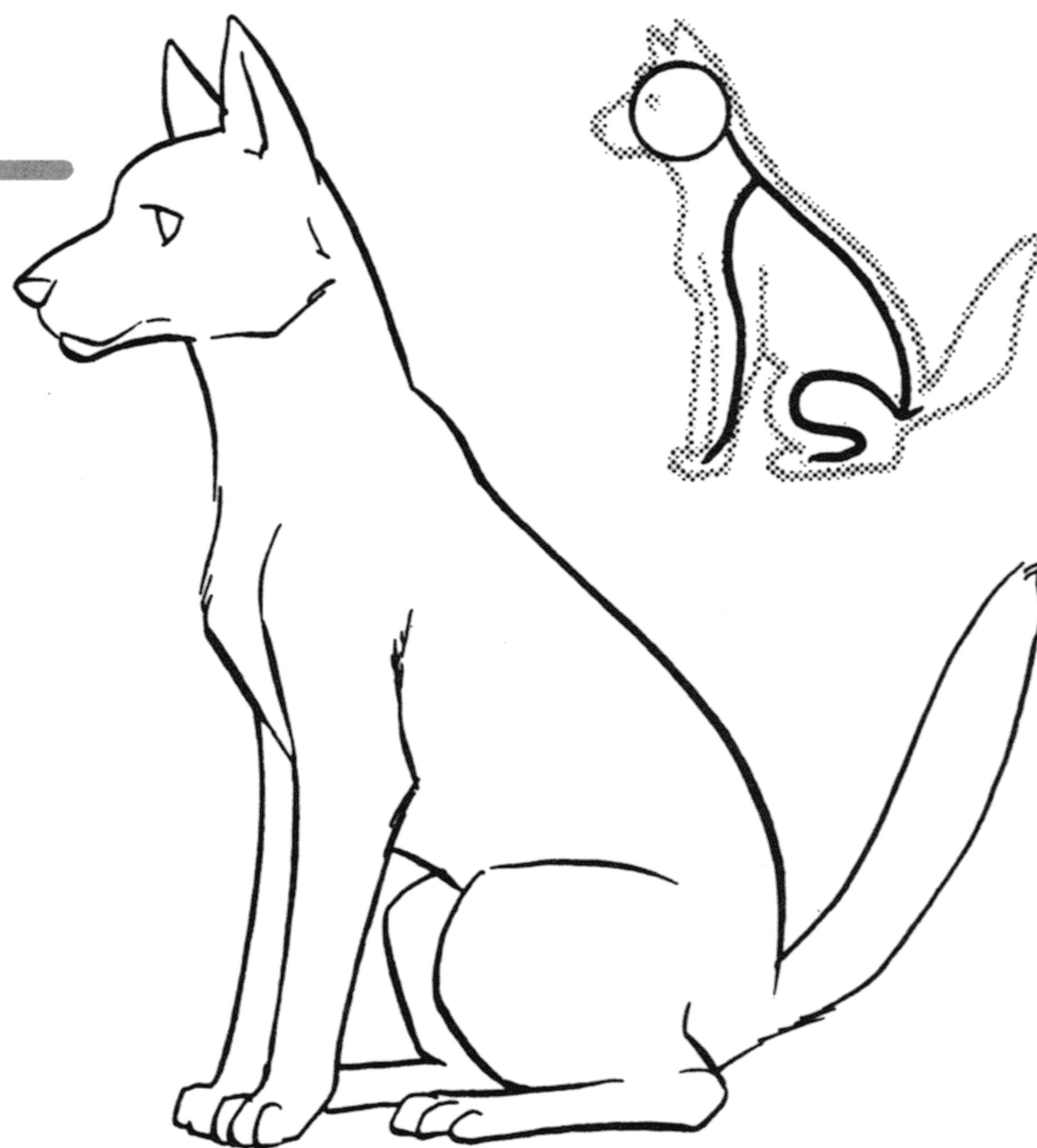
When drawing an animal seated, be sure to round the back.

Drawing Stages

①

②

③

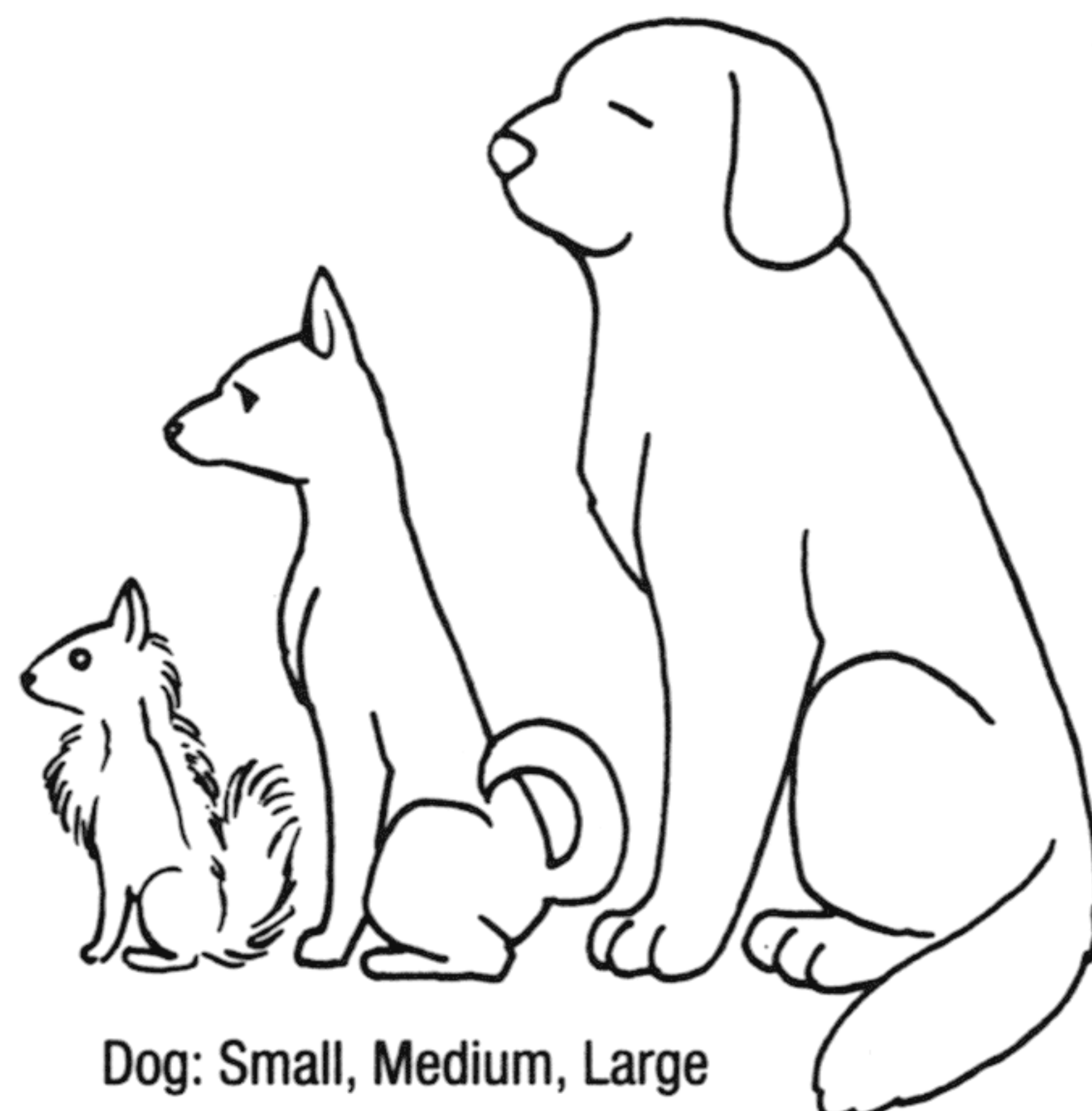
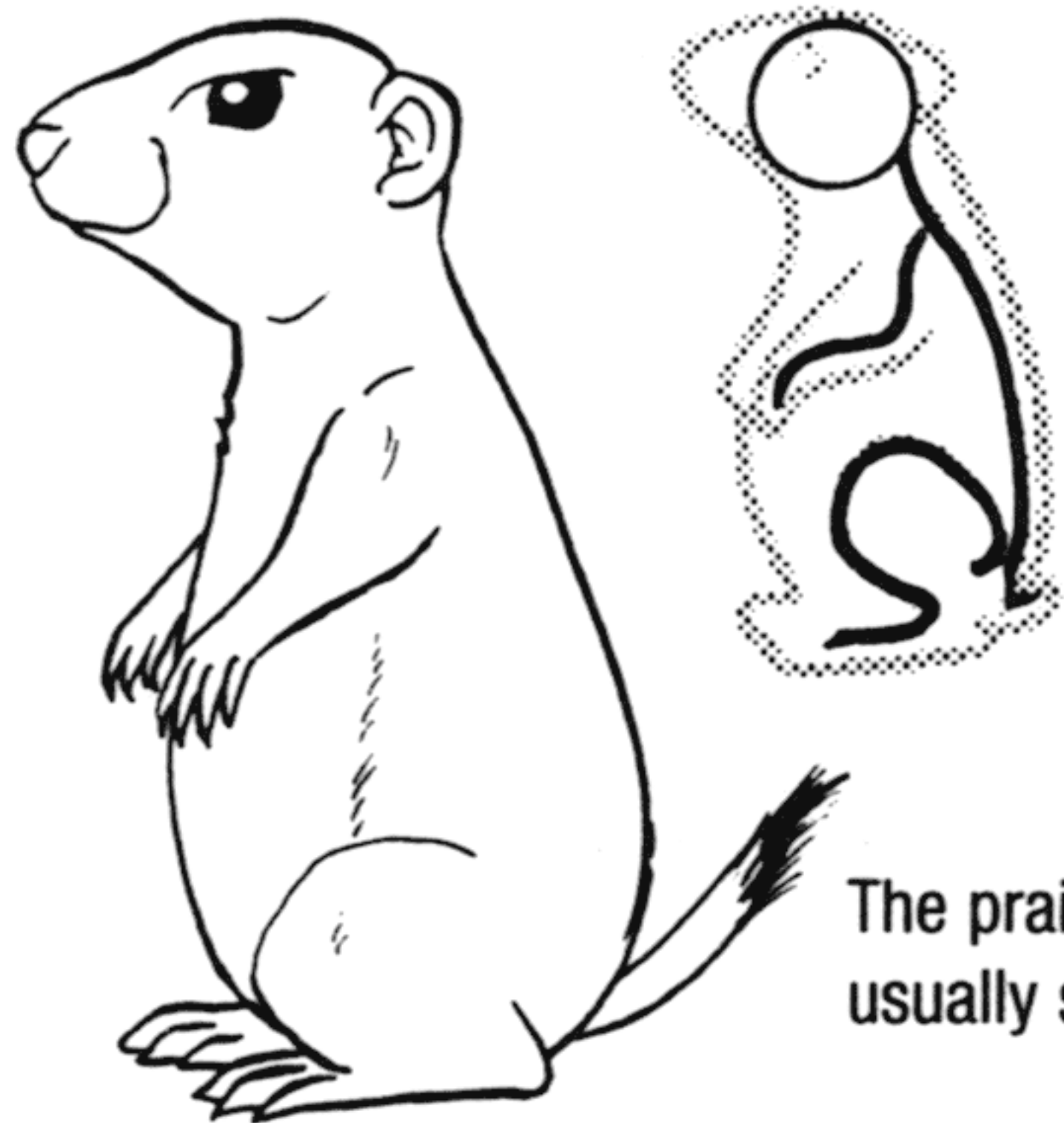
Cat

Dog

Hamster

The hamster's most common position is a seated pose.

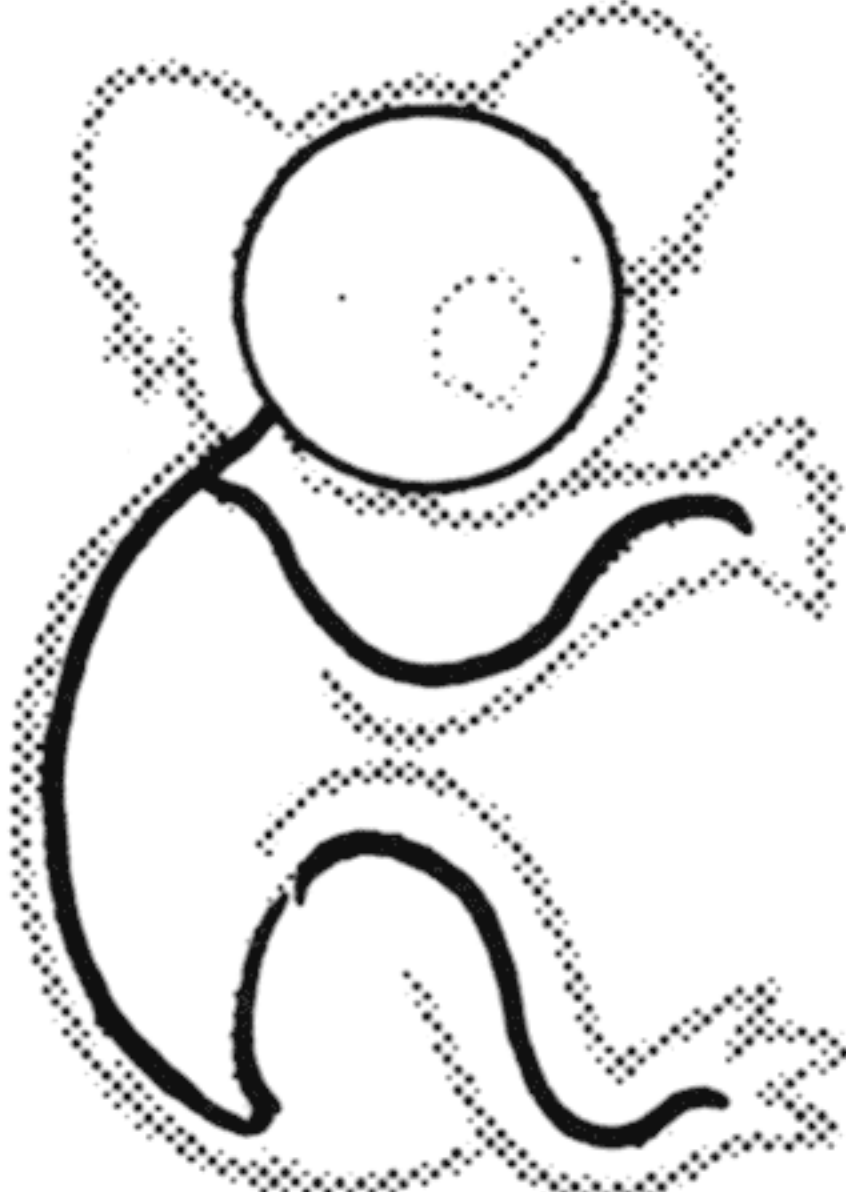
If you try to seat a hamster the way a cat or dog would sit, it will end up standing.

Assorted Animals Sitting

Hamster Chipmunk Rabbit Meerkat Cat Dog: Small, Medium, Large

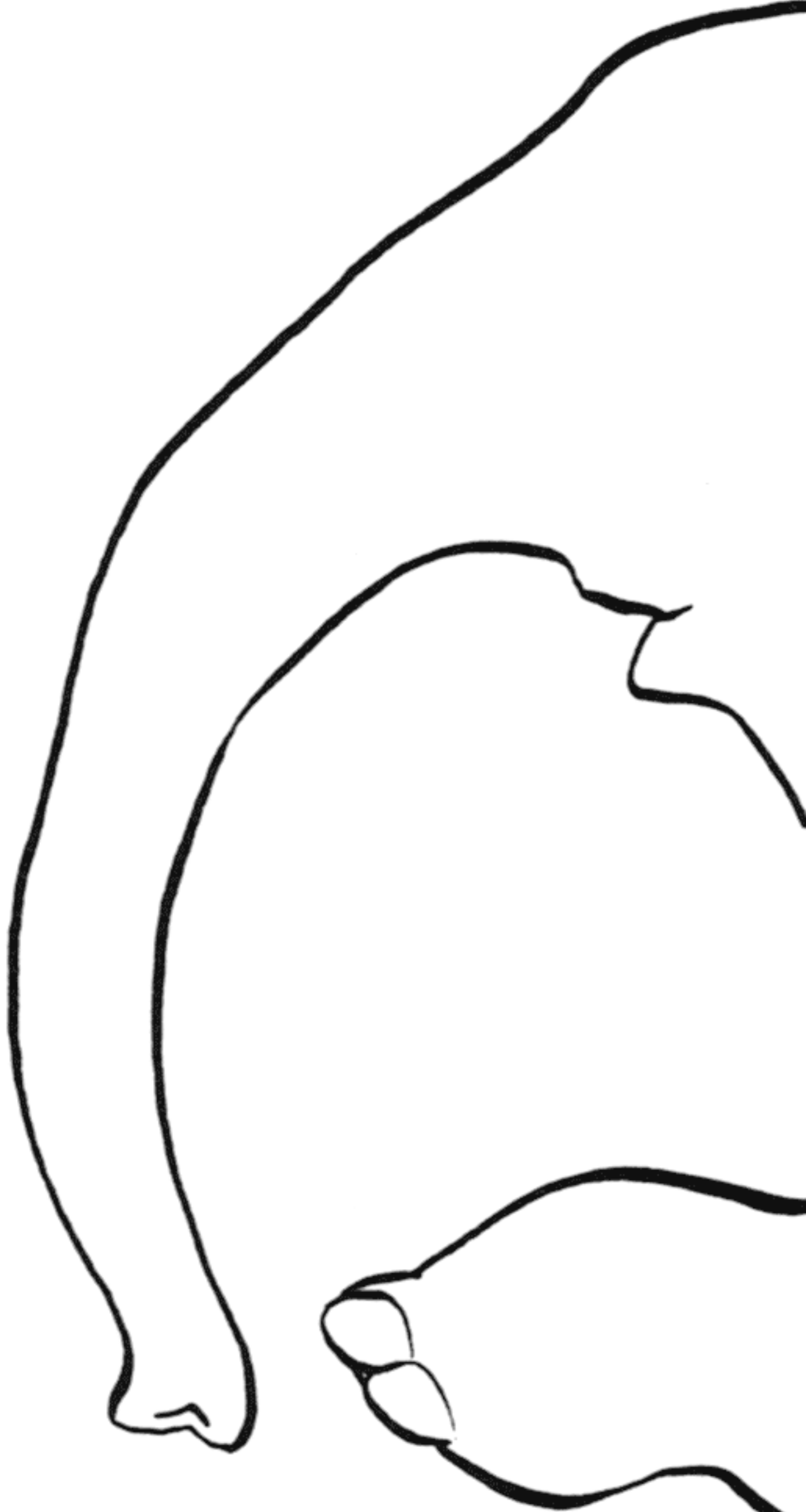
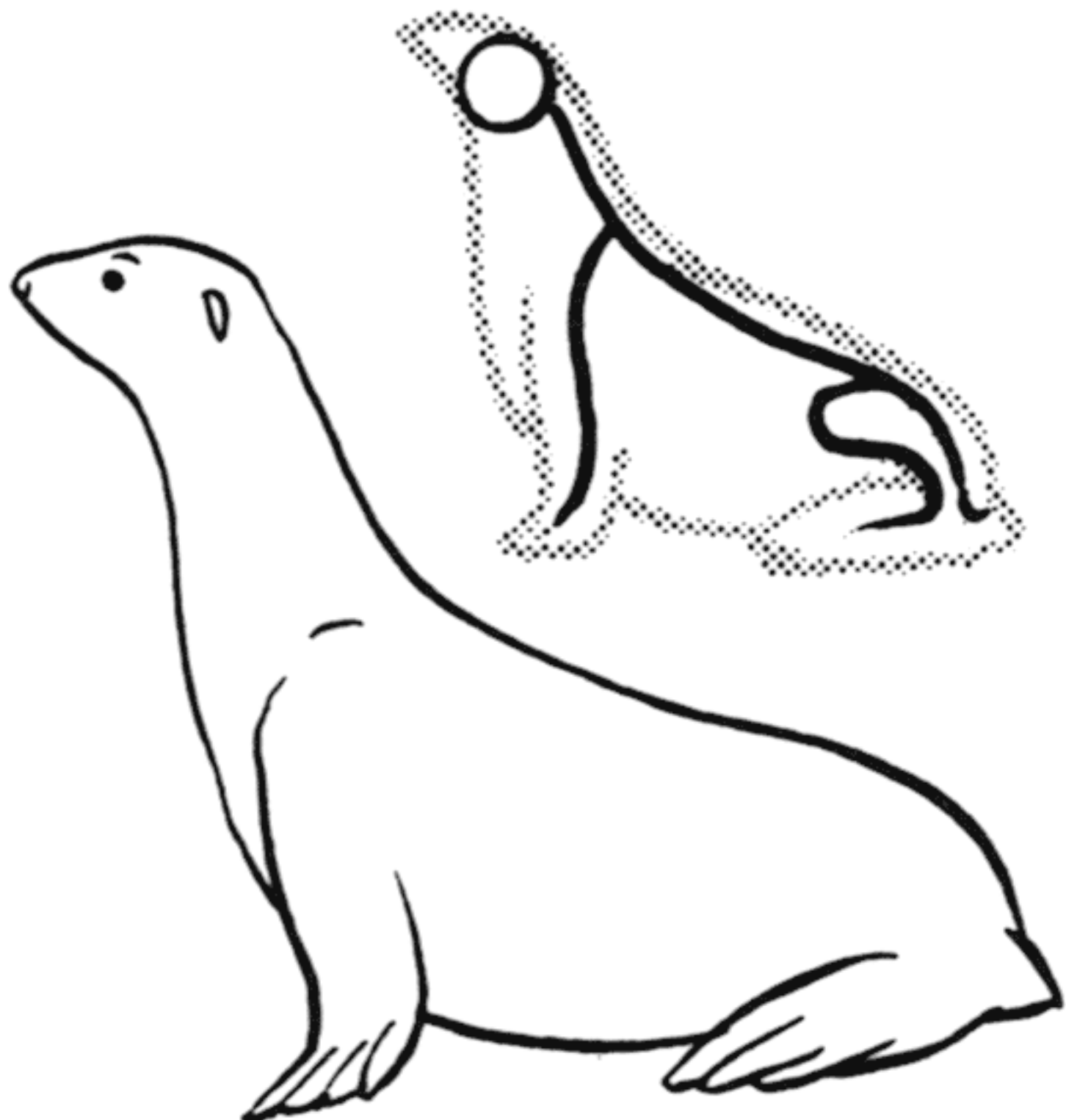
Animals whose legs are too short to touch the ground if drawn seated like a cat or dog

Prairie Dog

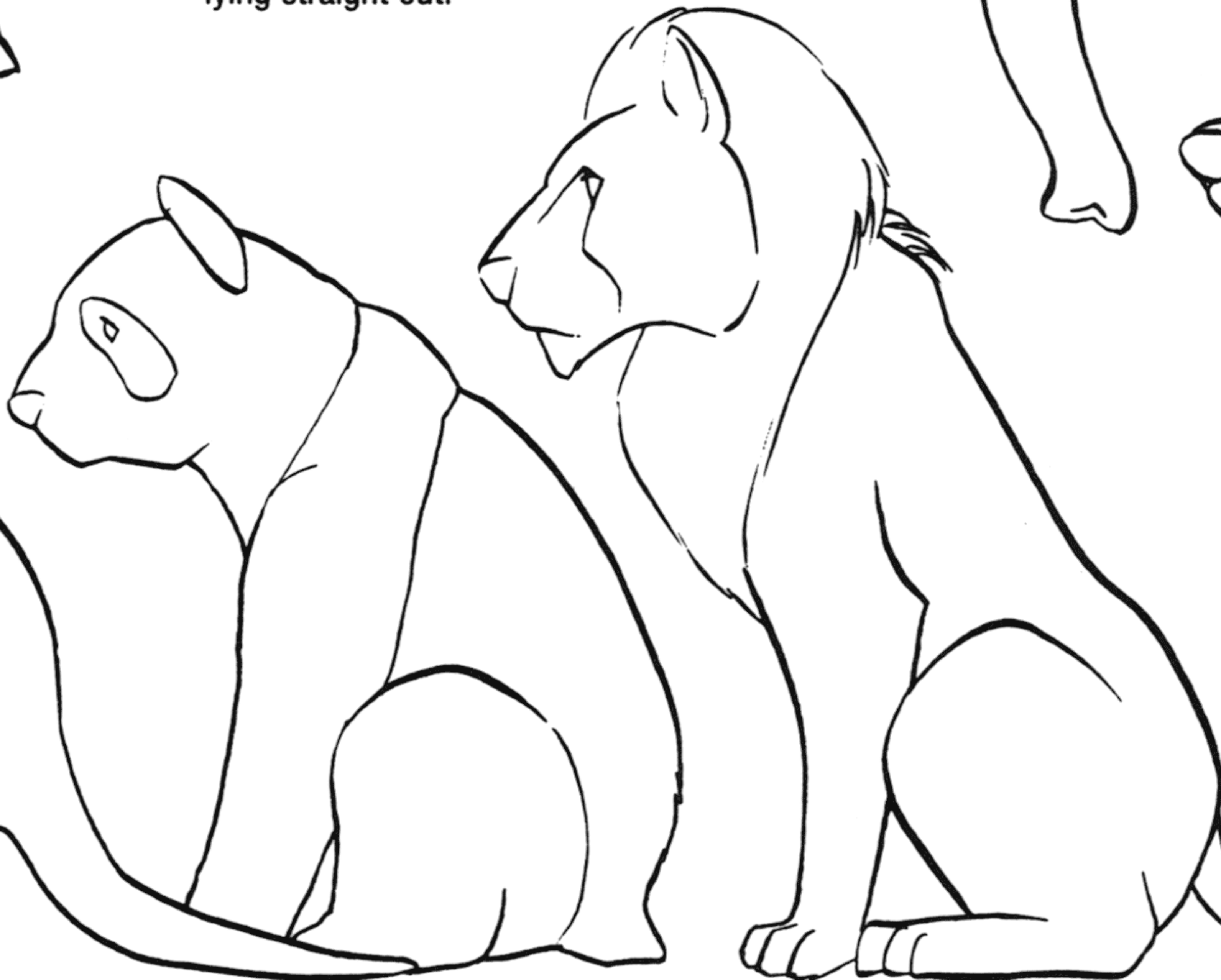
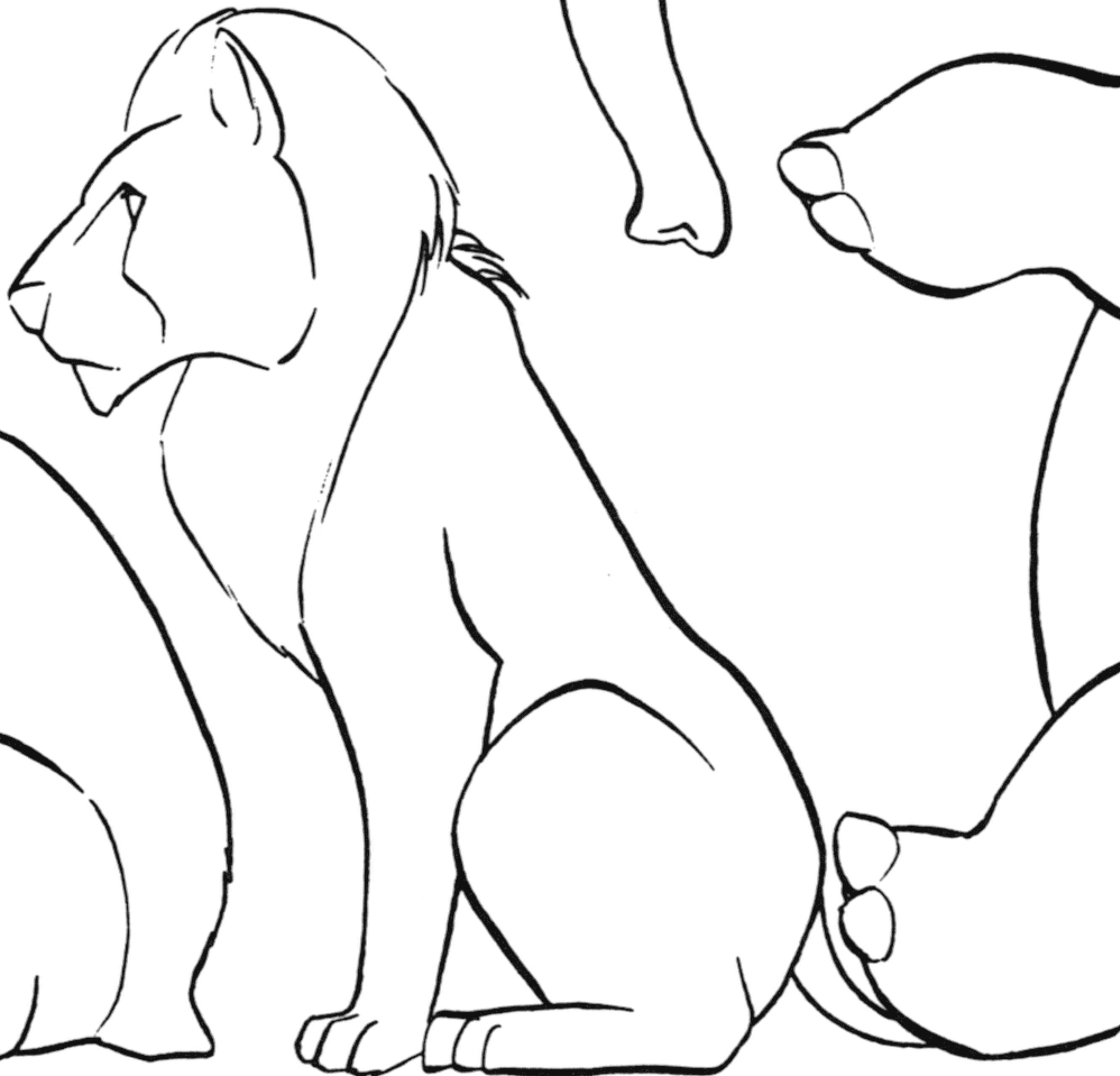
The prairie dog is usually seen sitting.

Koala

The koala's tree-hugging pose is the same as a seated position.

Bear

Bears typically sit with their hind legs lying straight out.

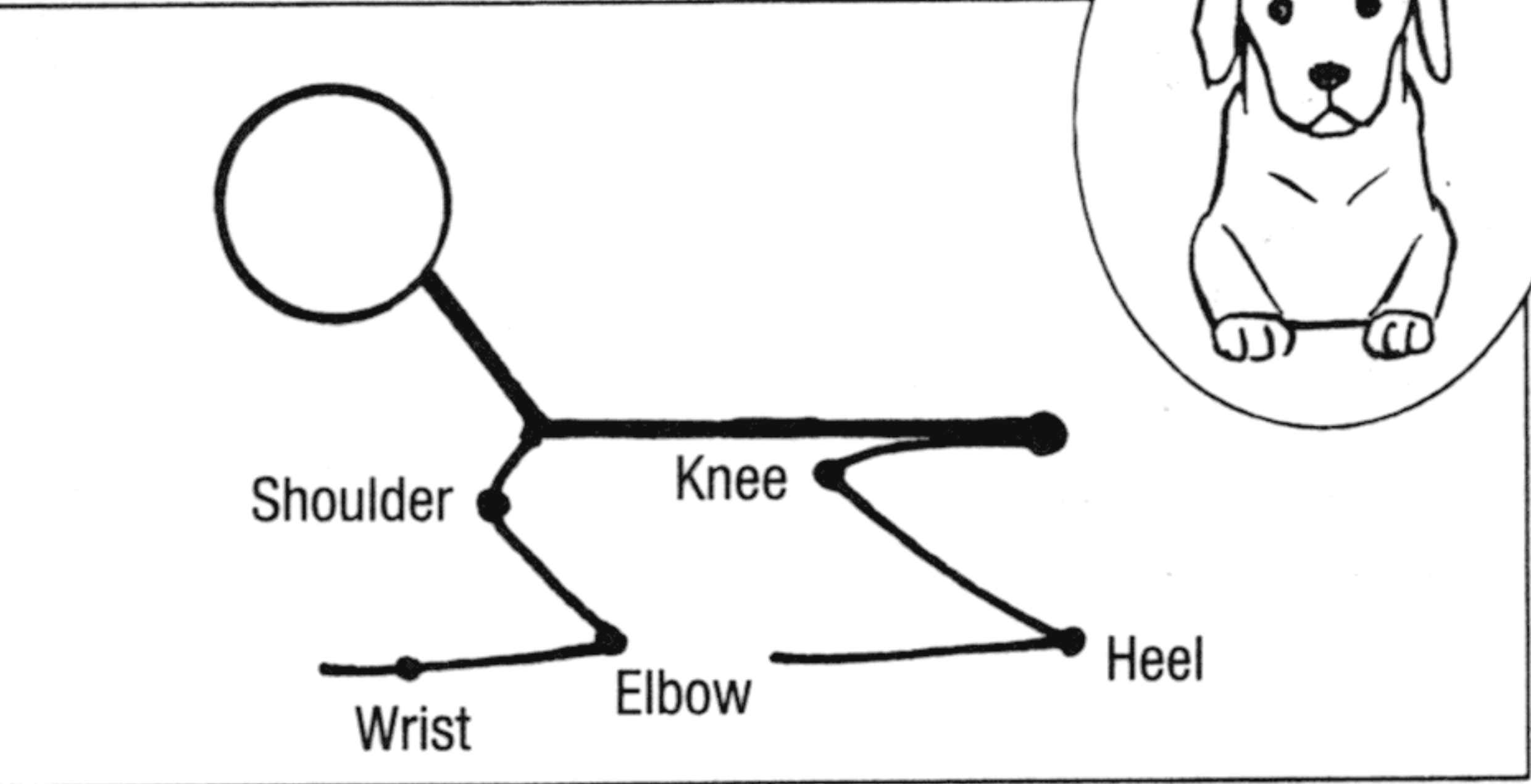
Sea Lion

Fox

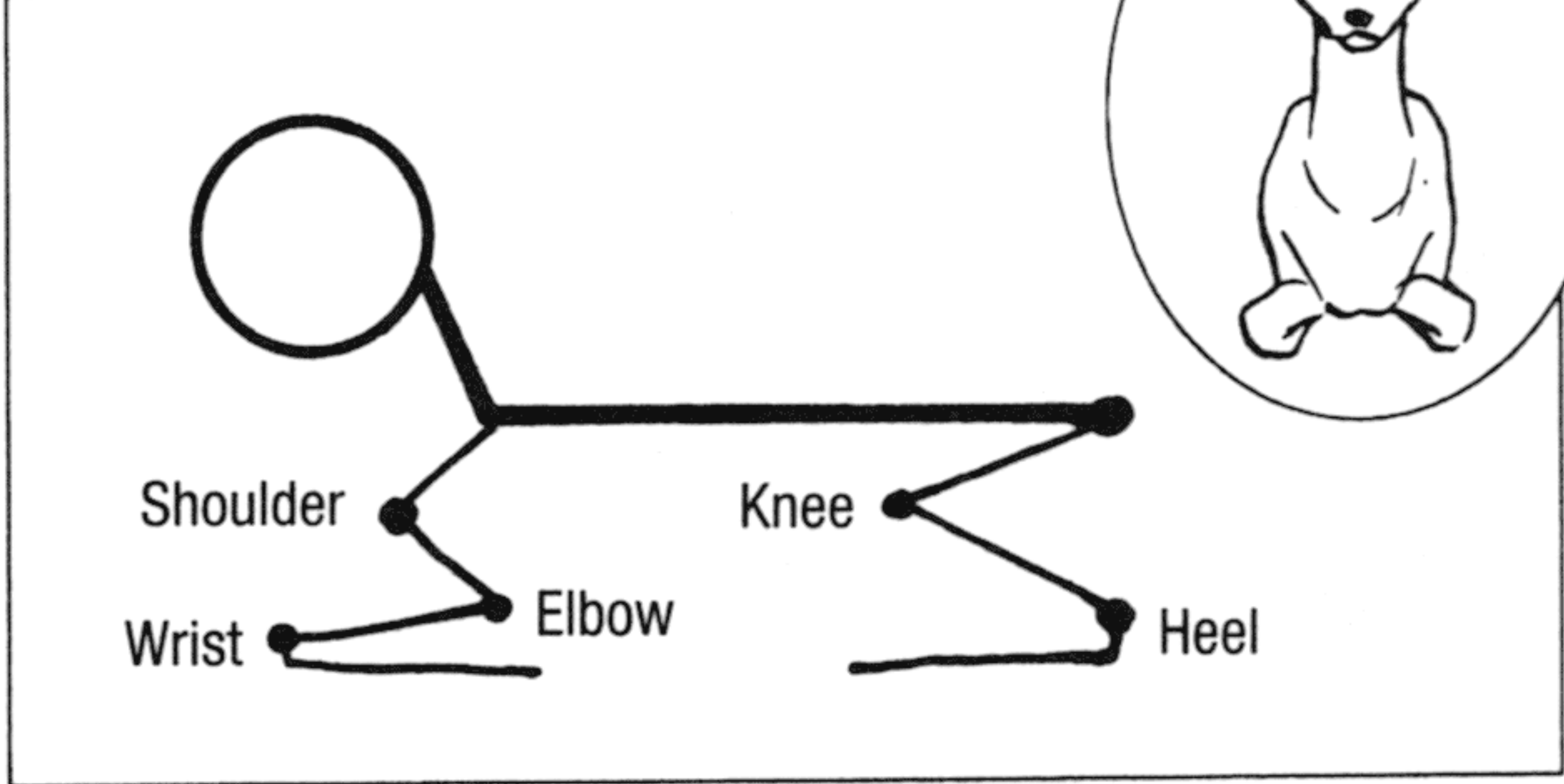
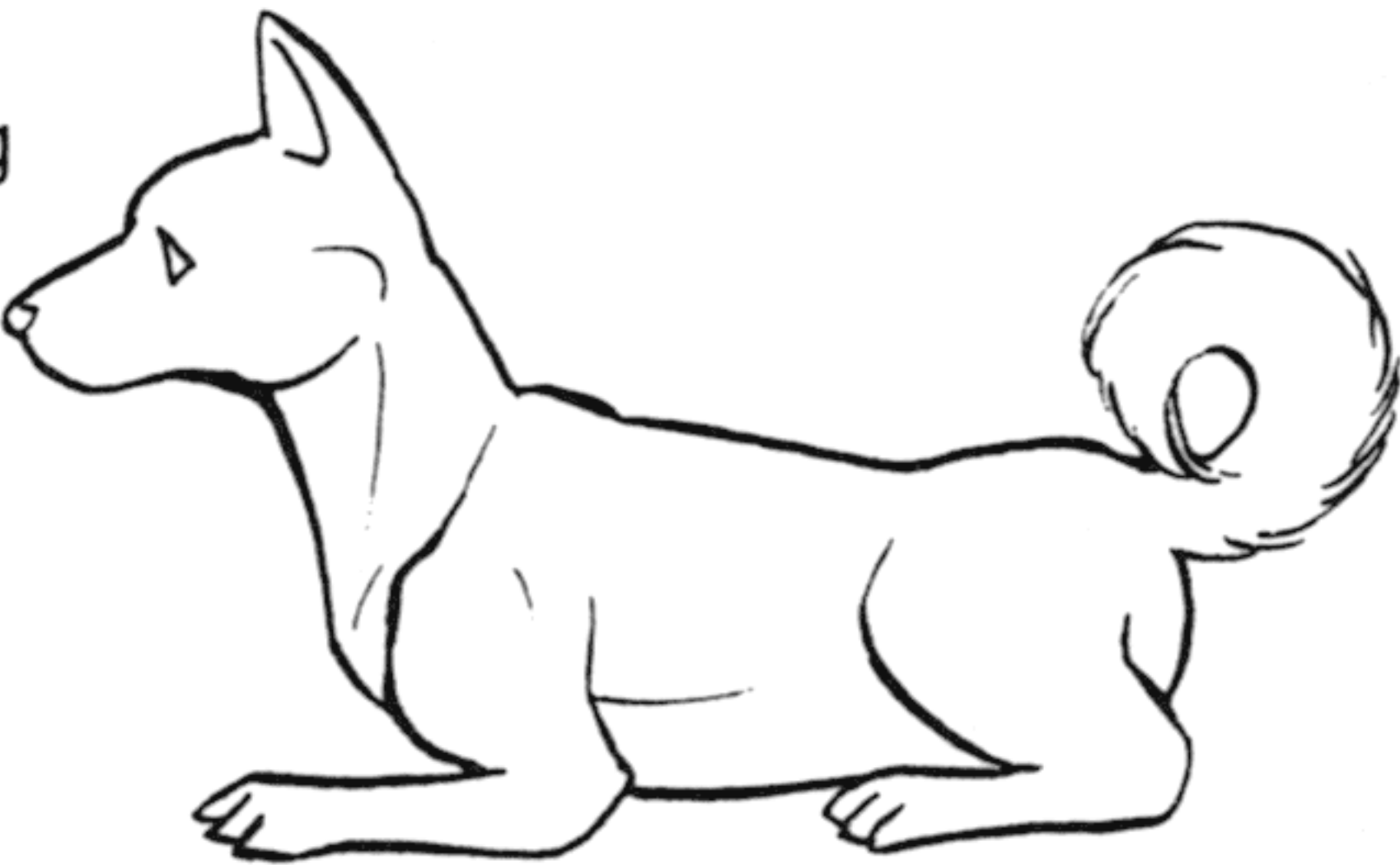
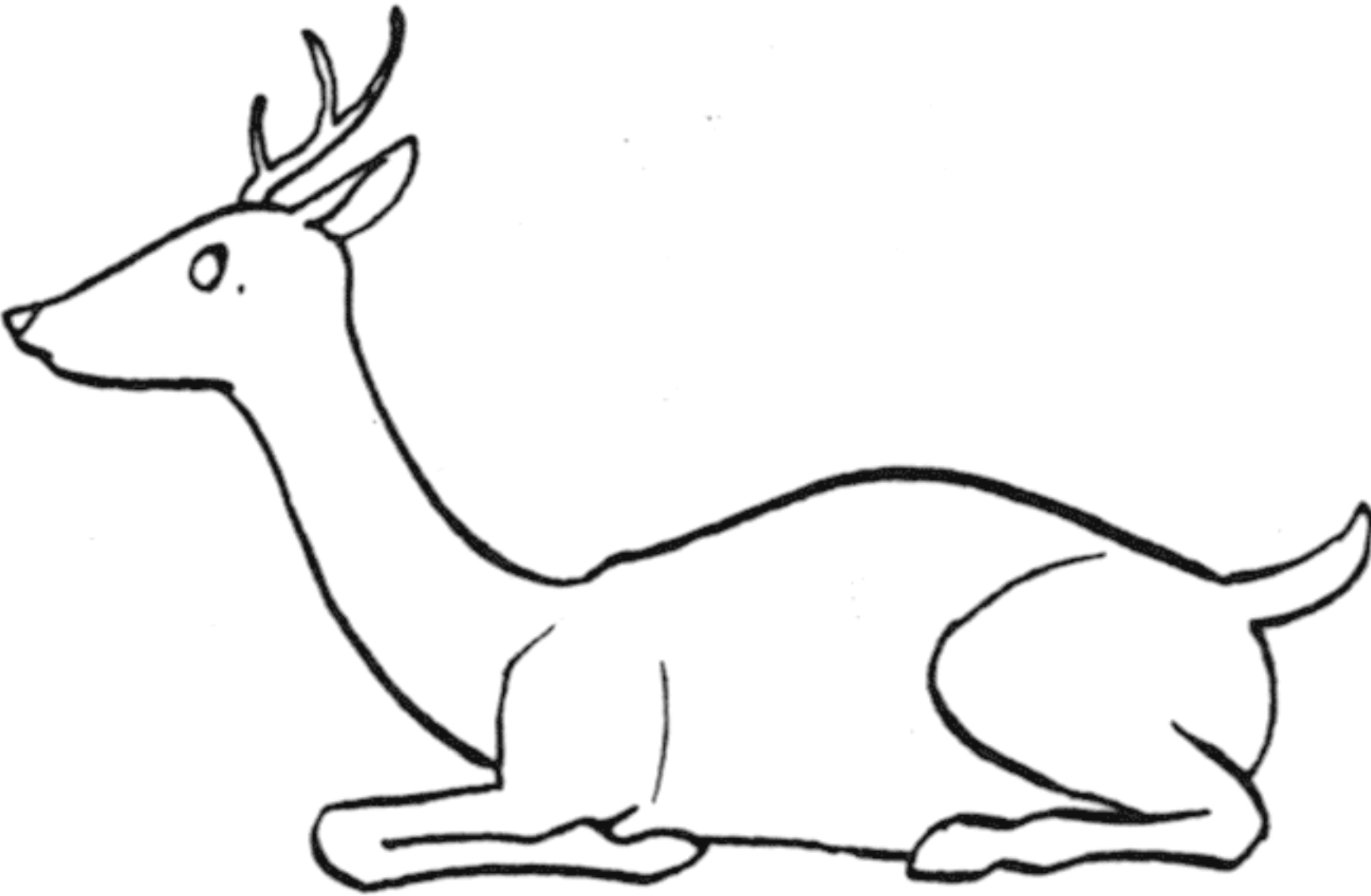
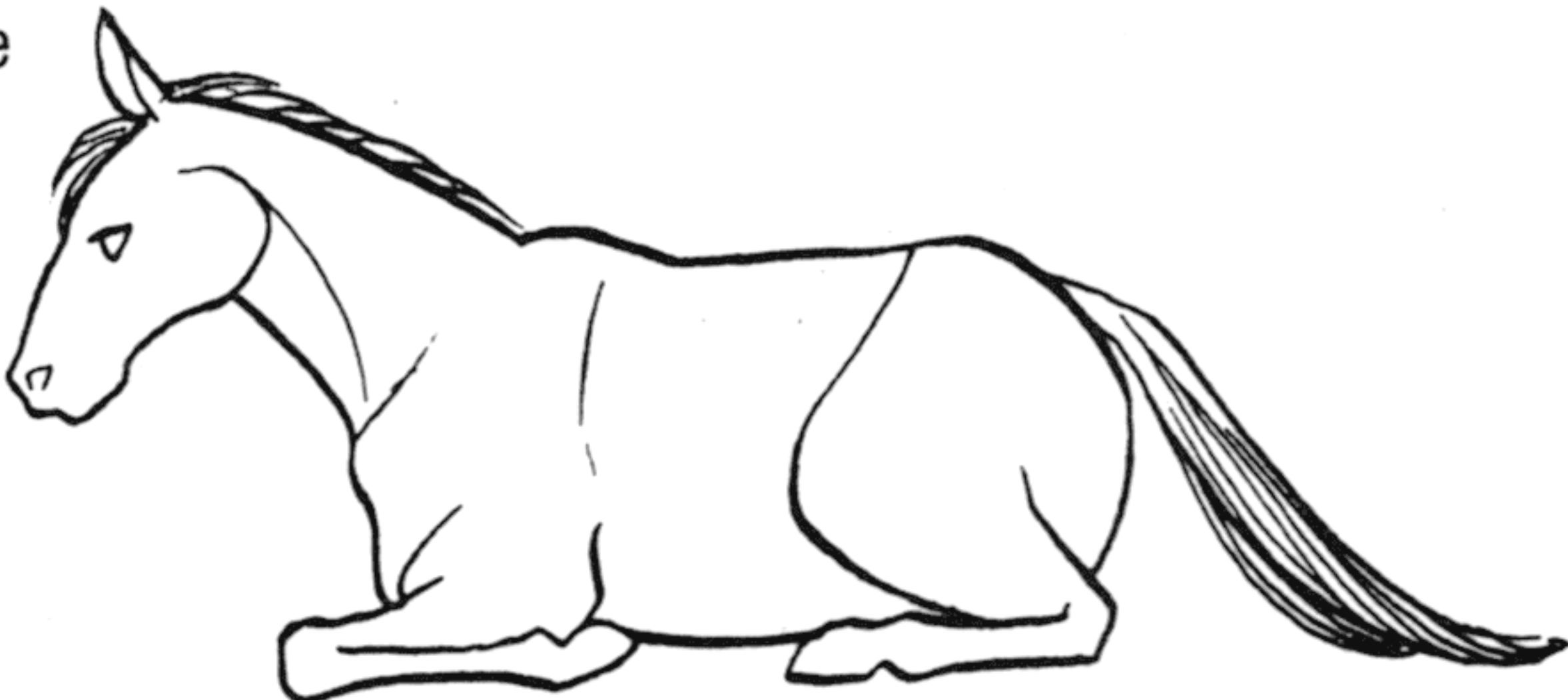
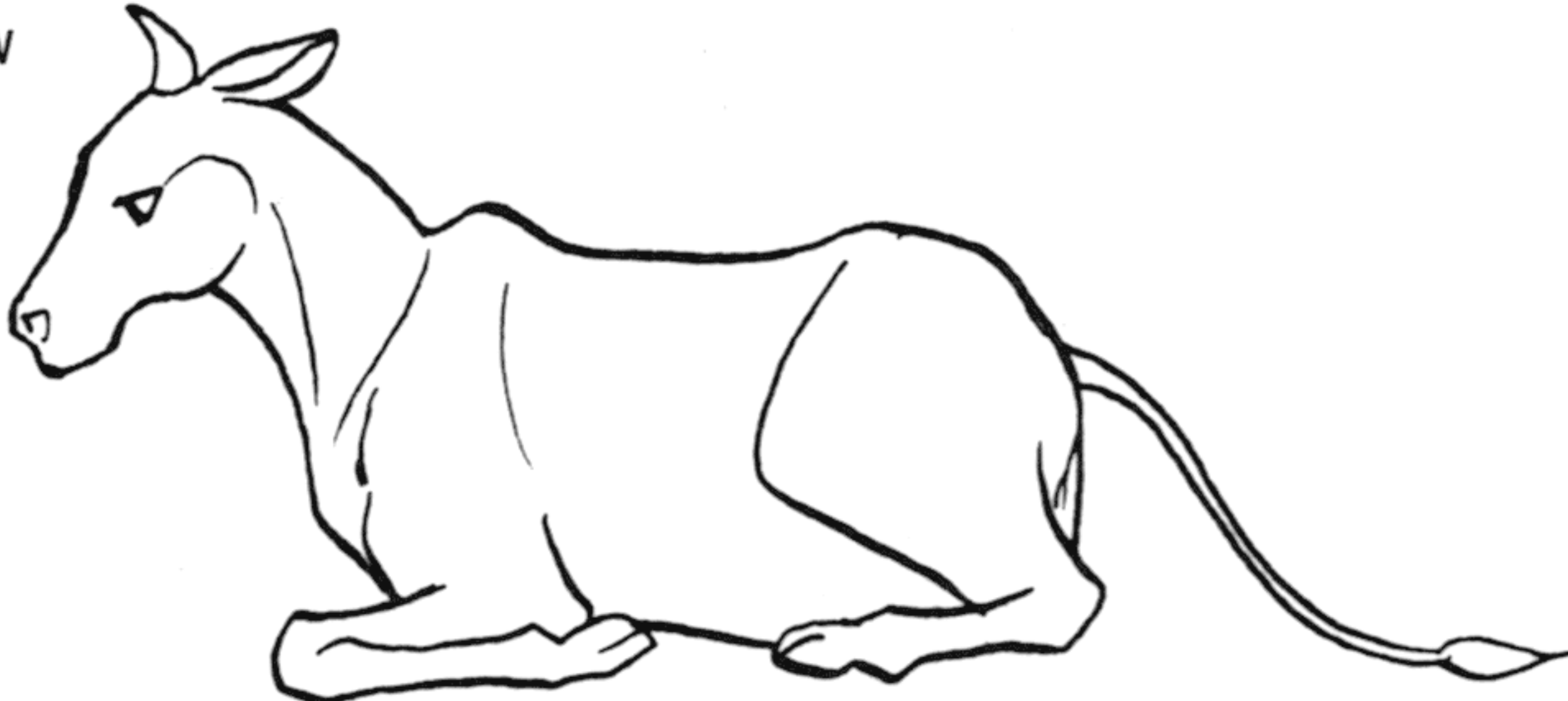
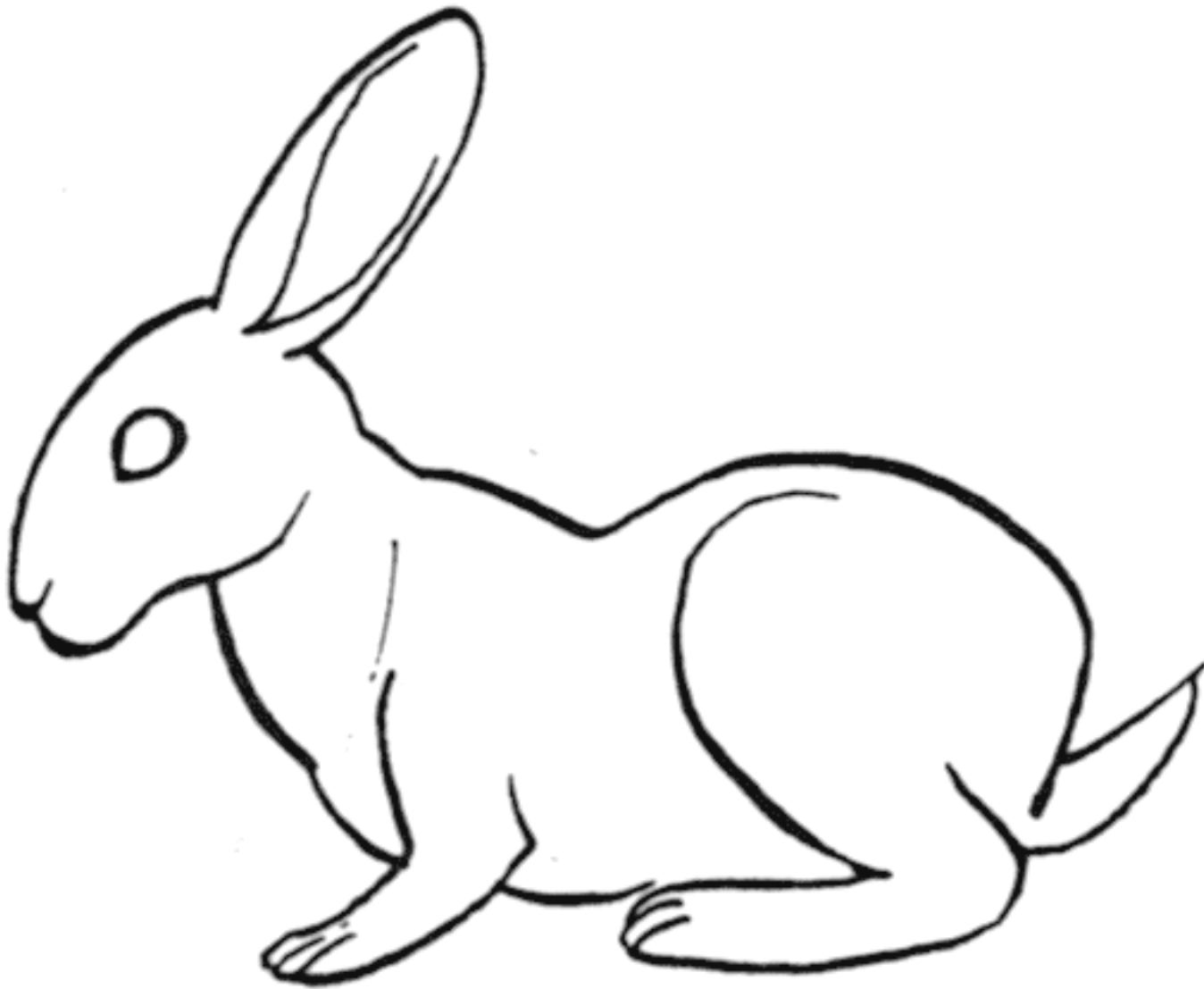
Kangaroo

Panda

Lion

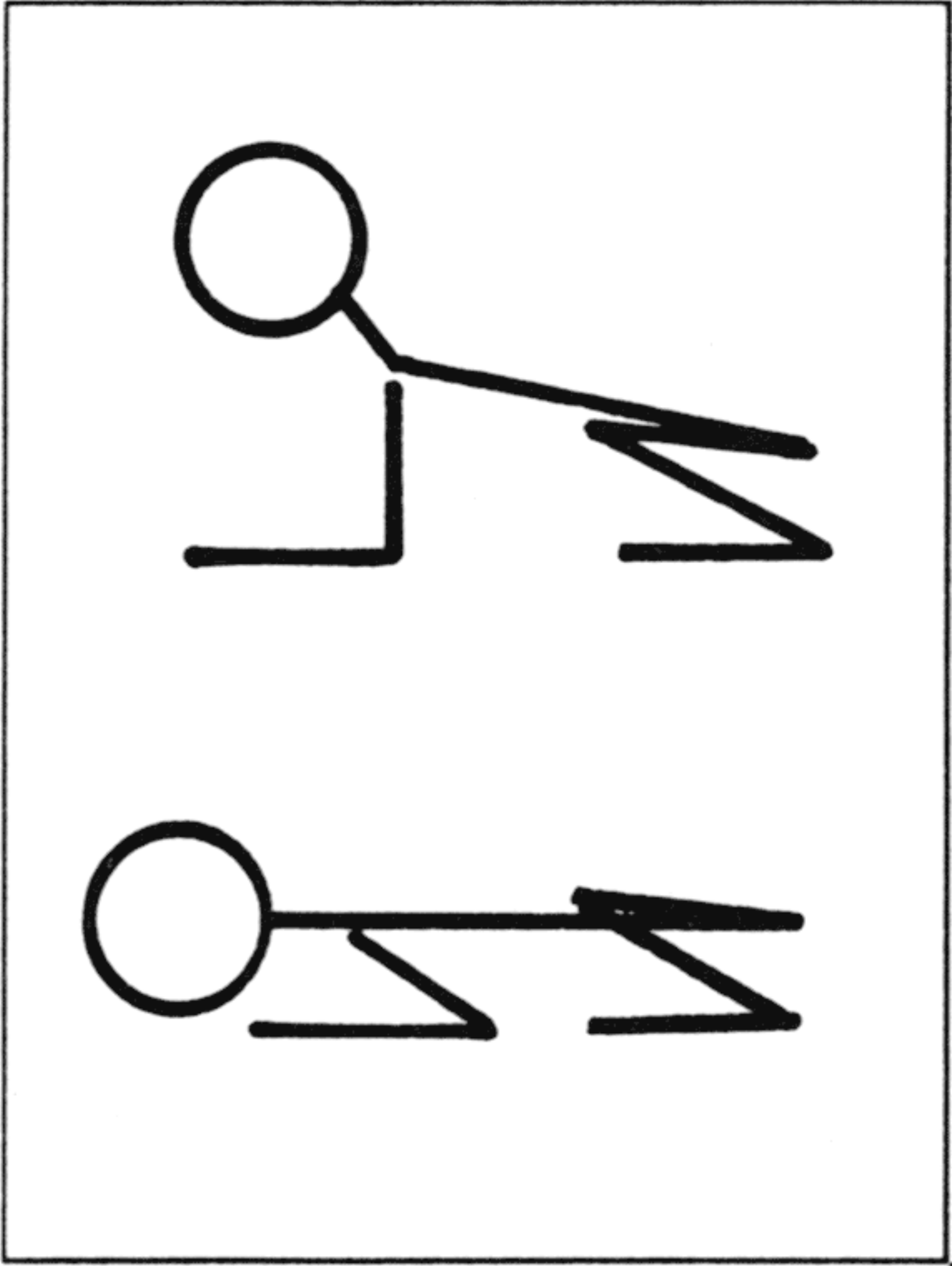
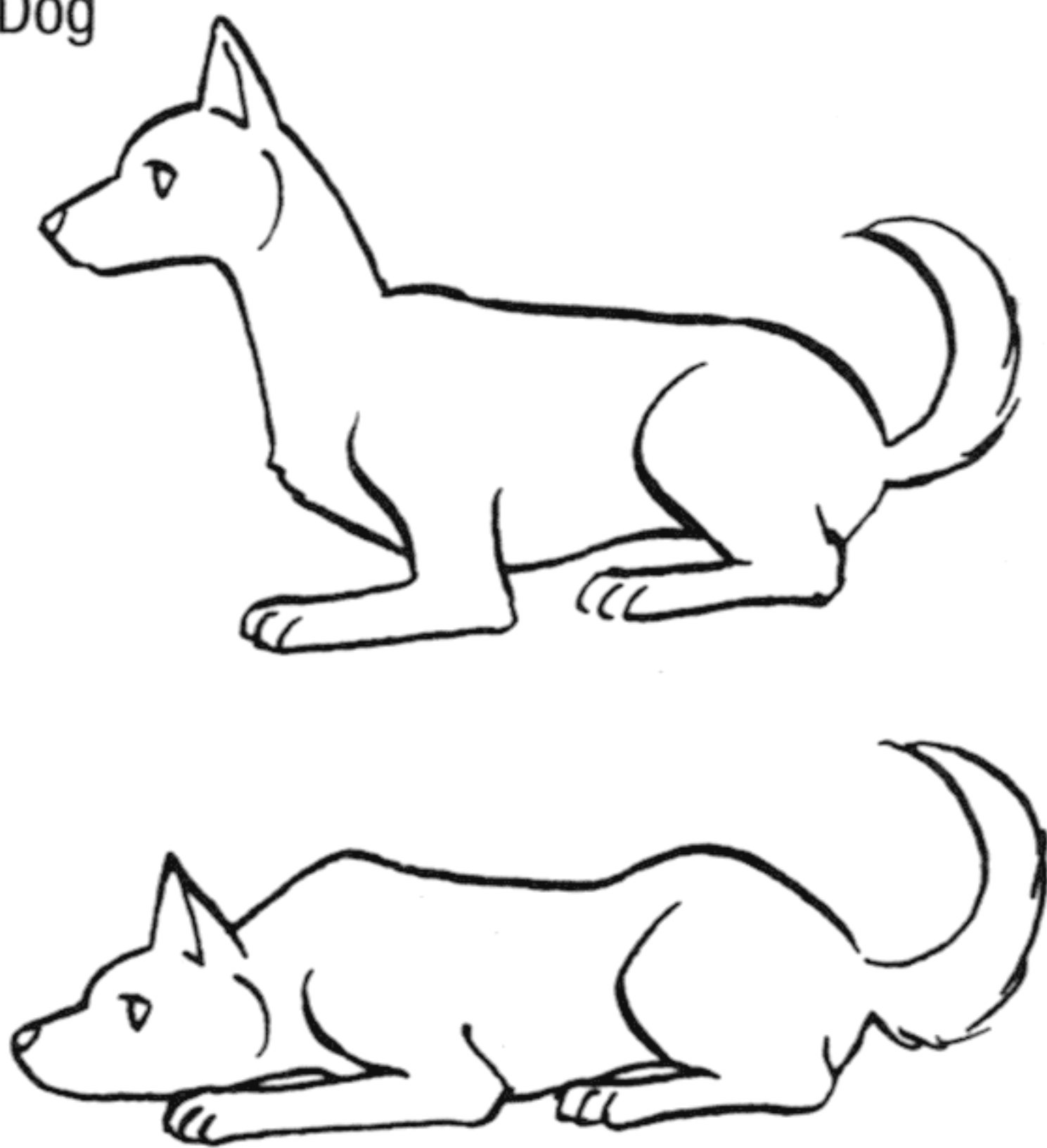
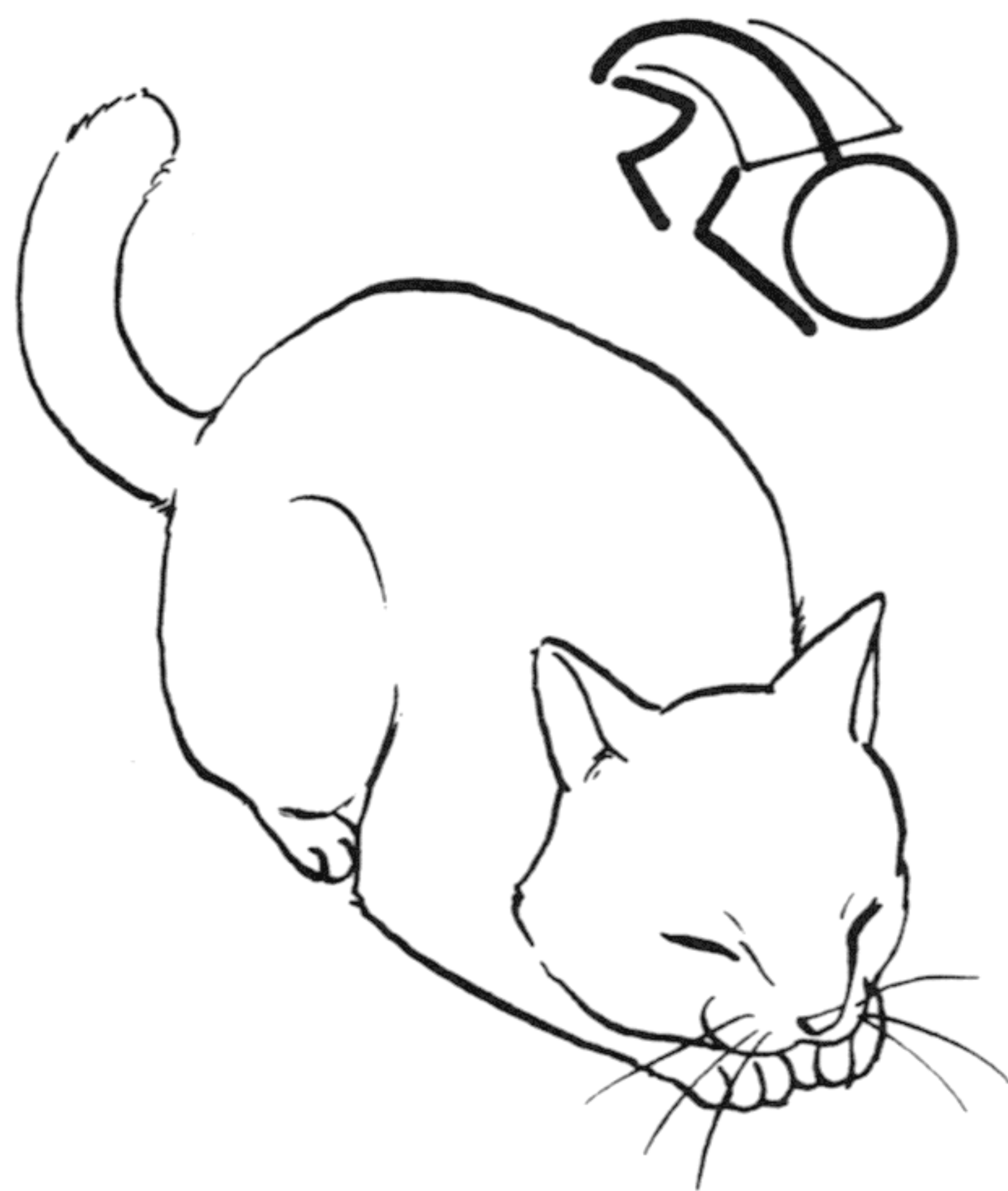
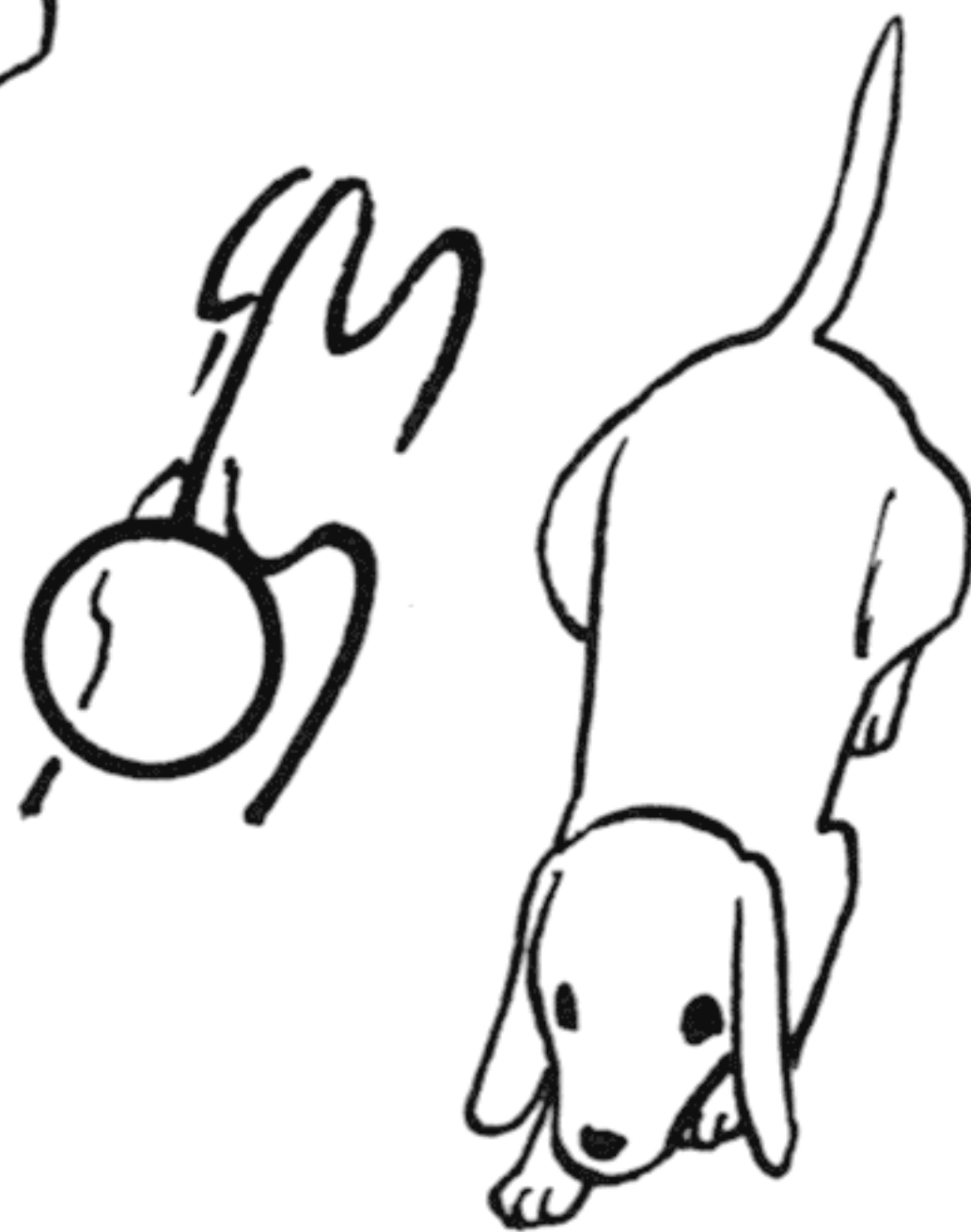
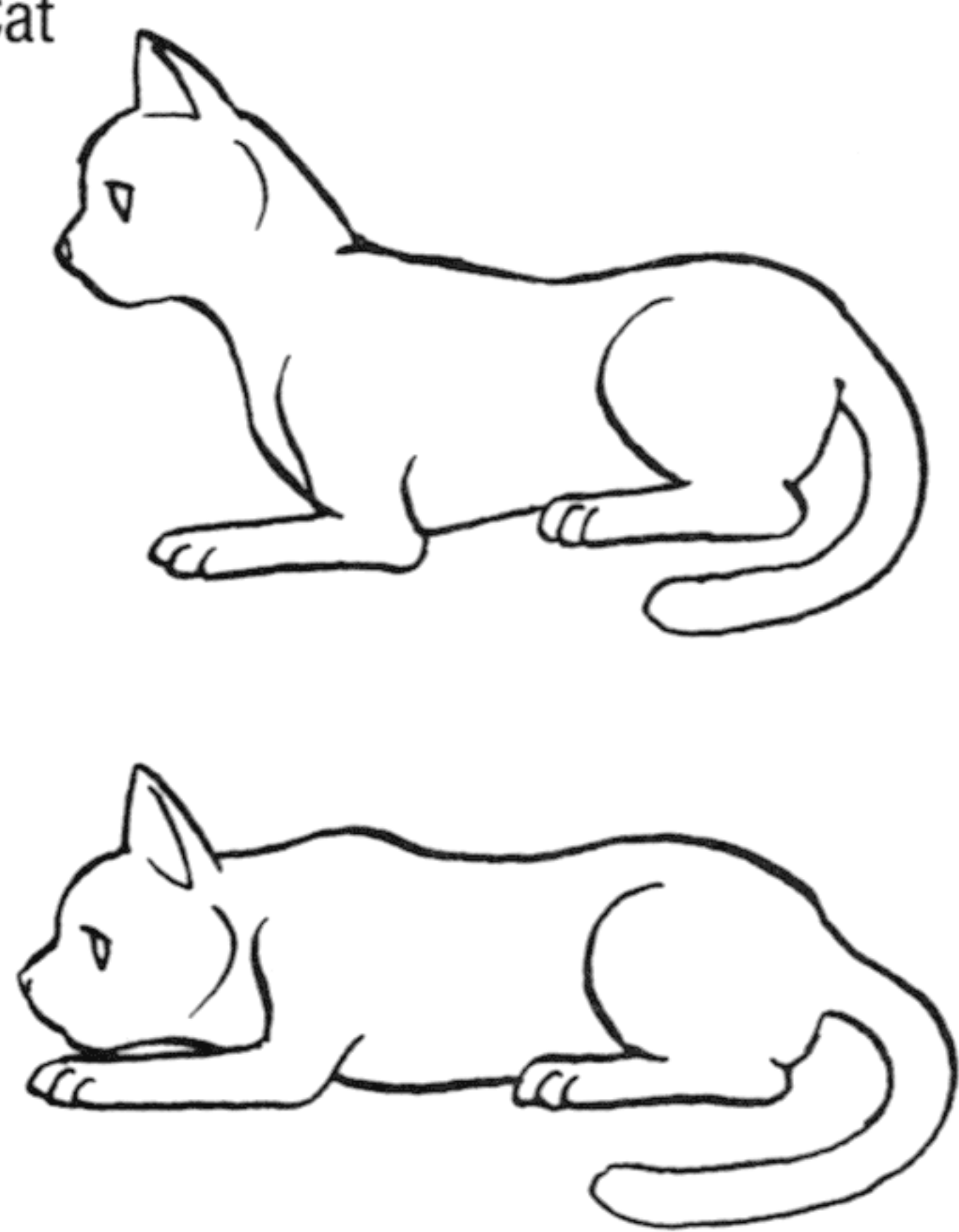
Circus Elephant

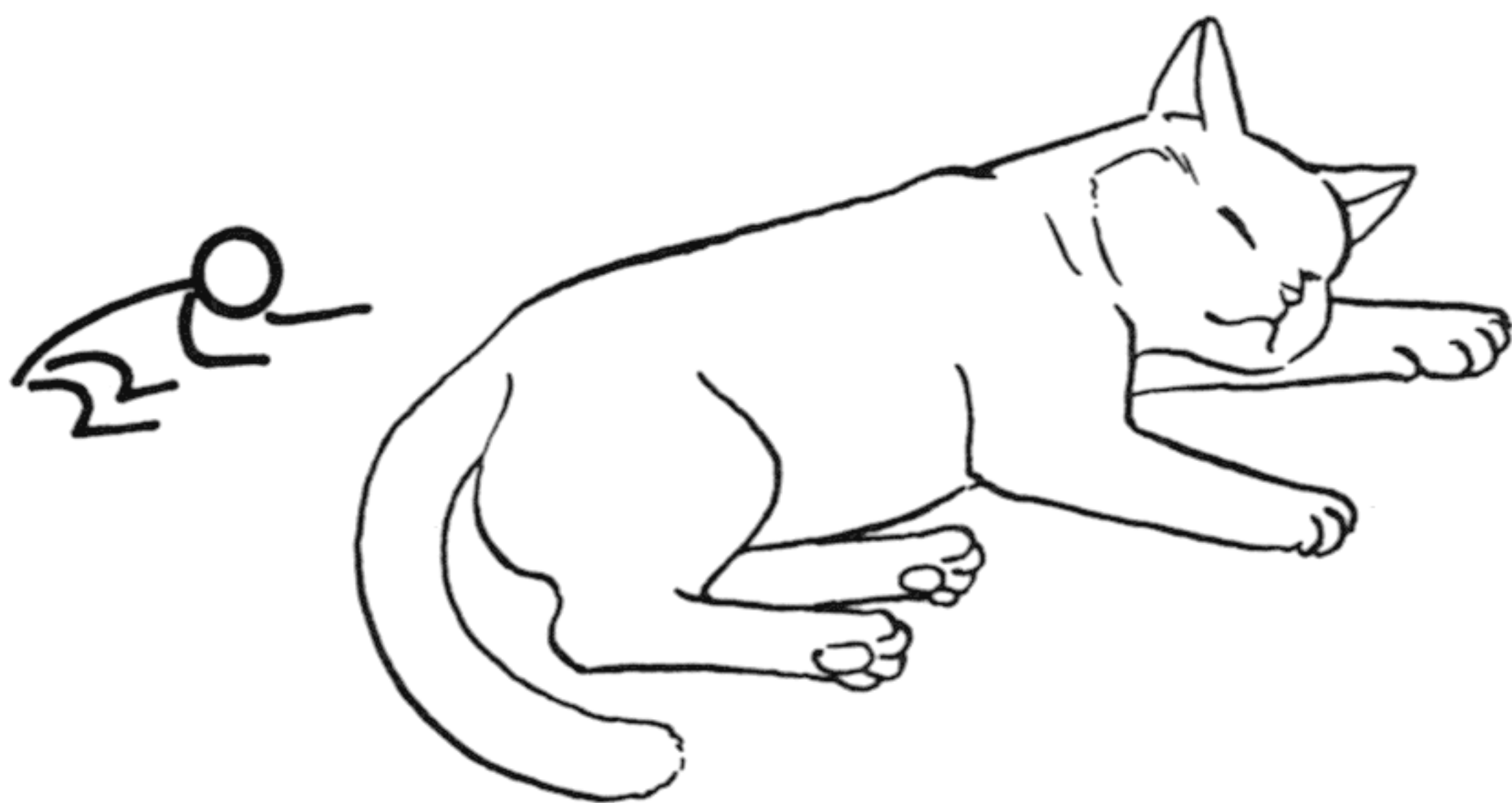
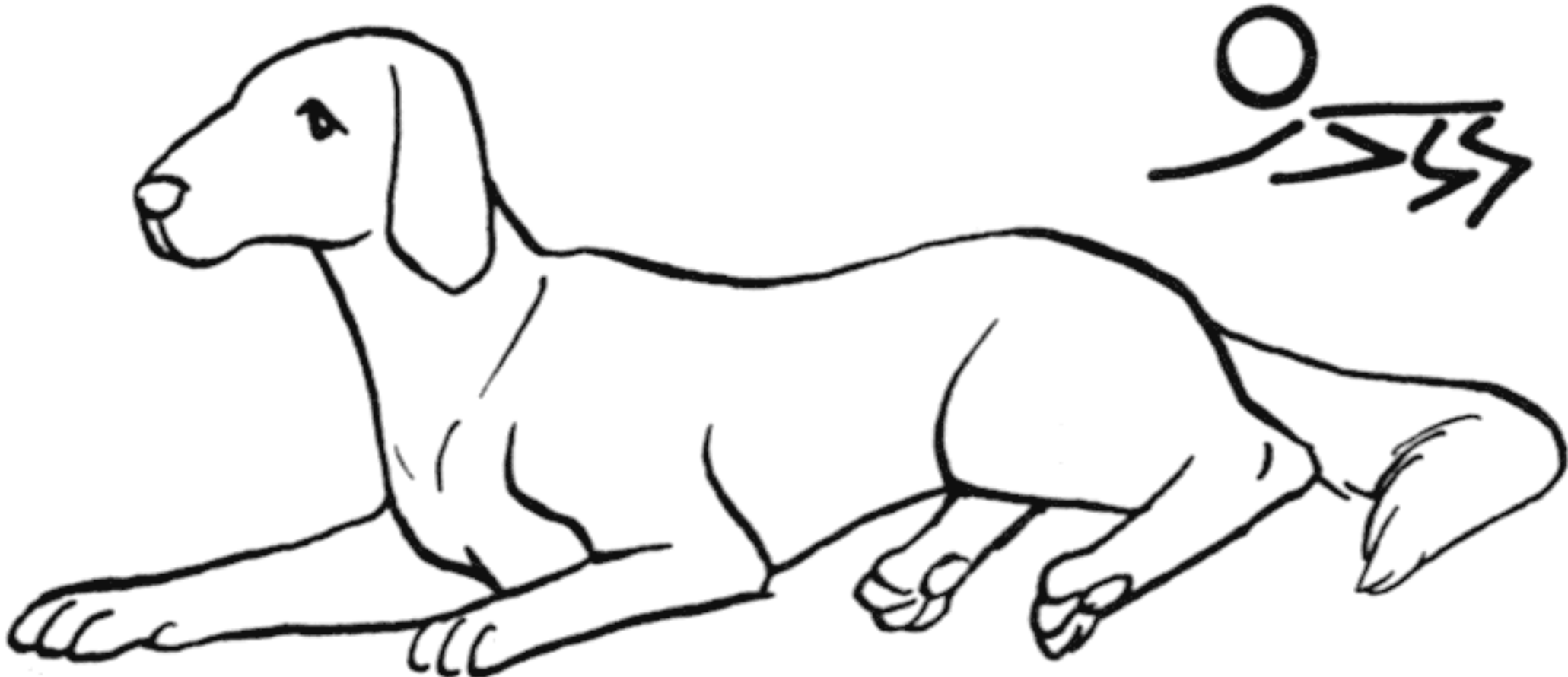
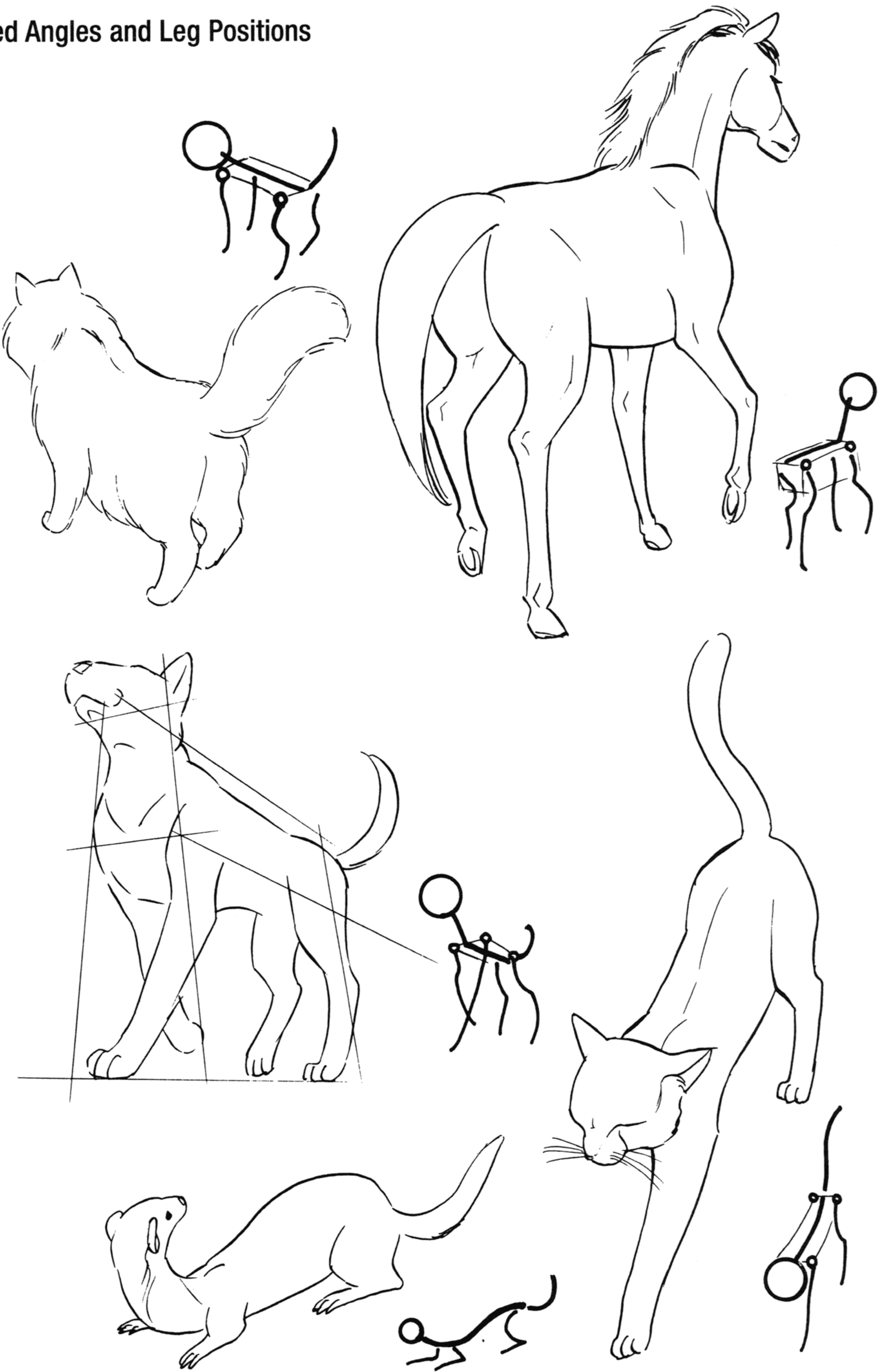
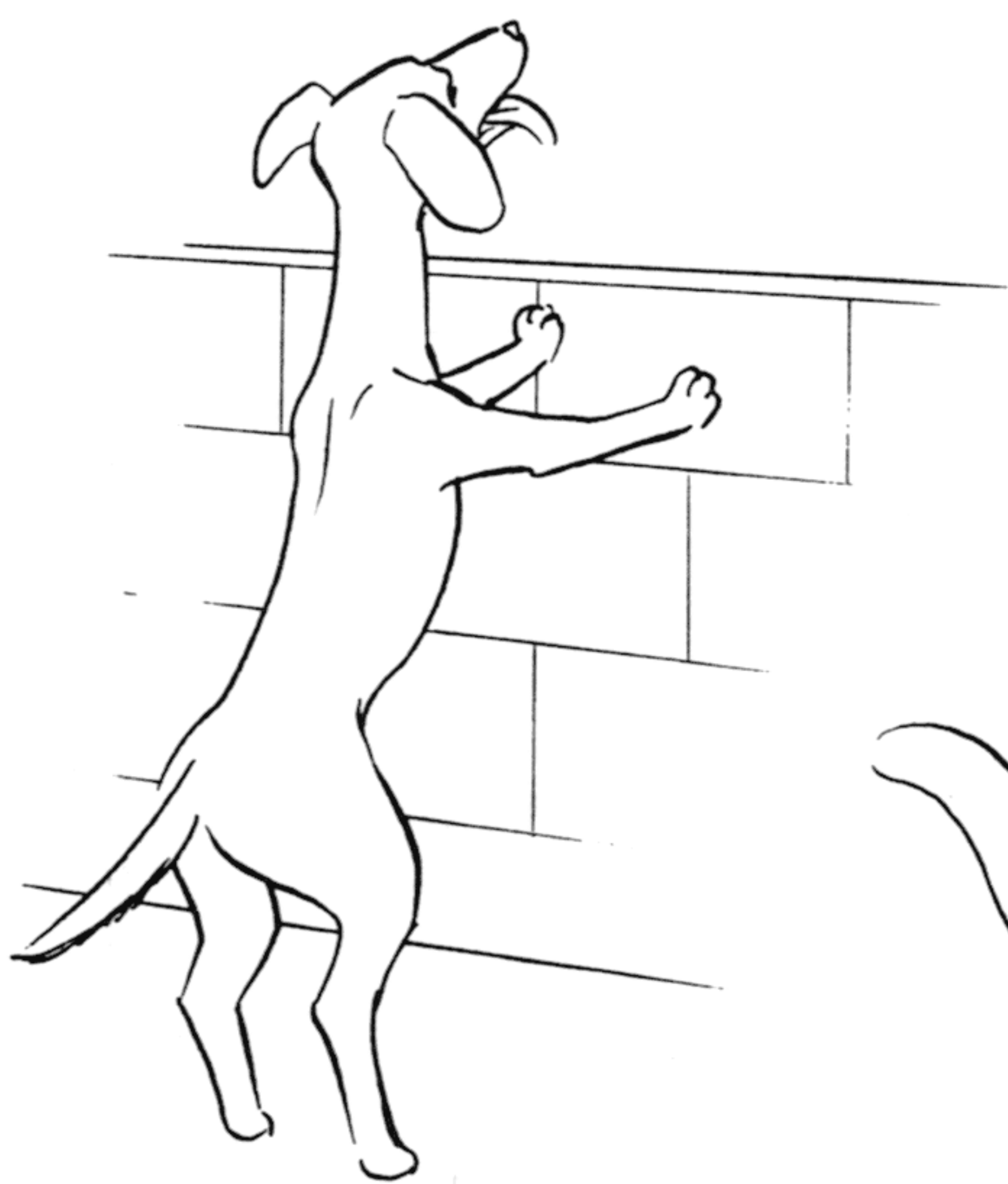
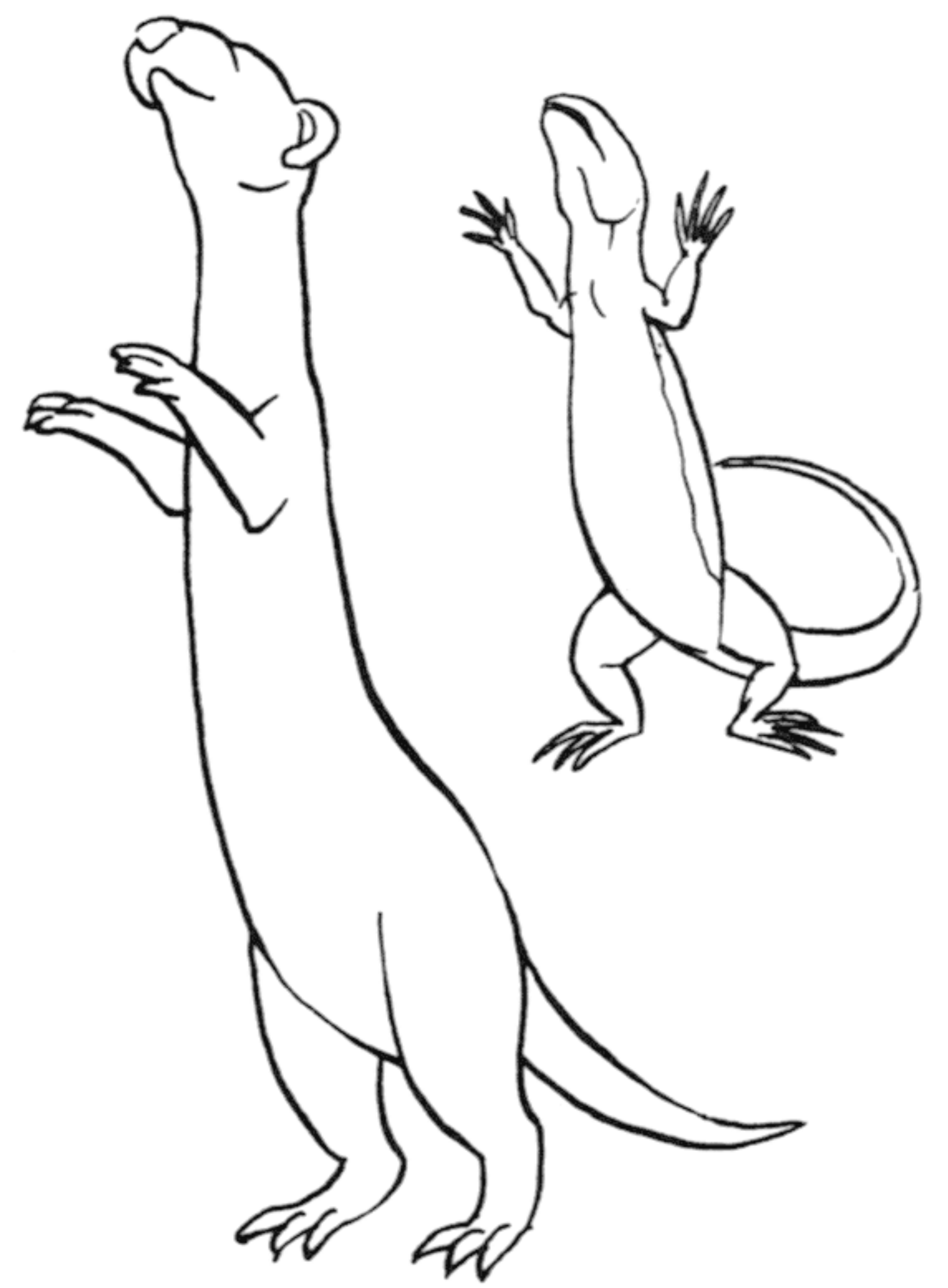
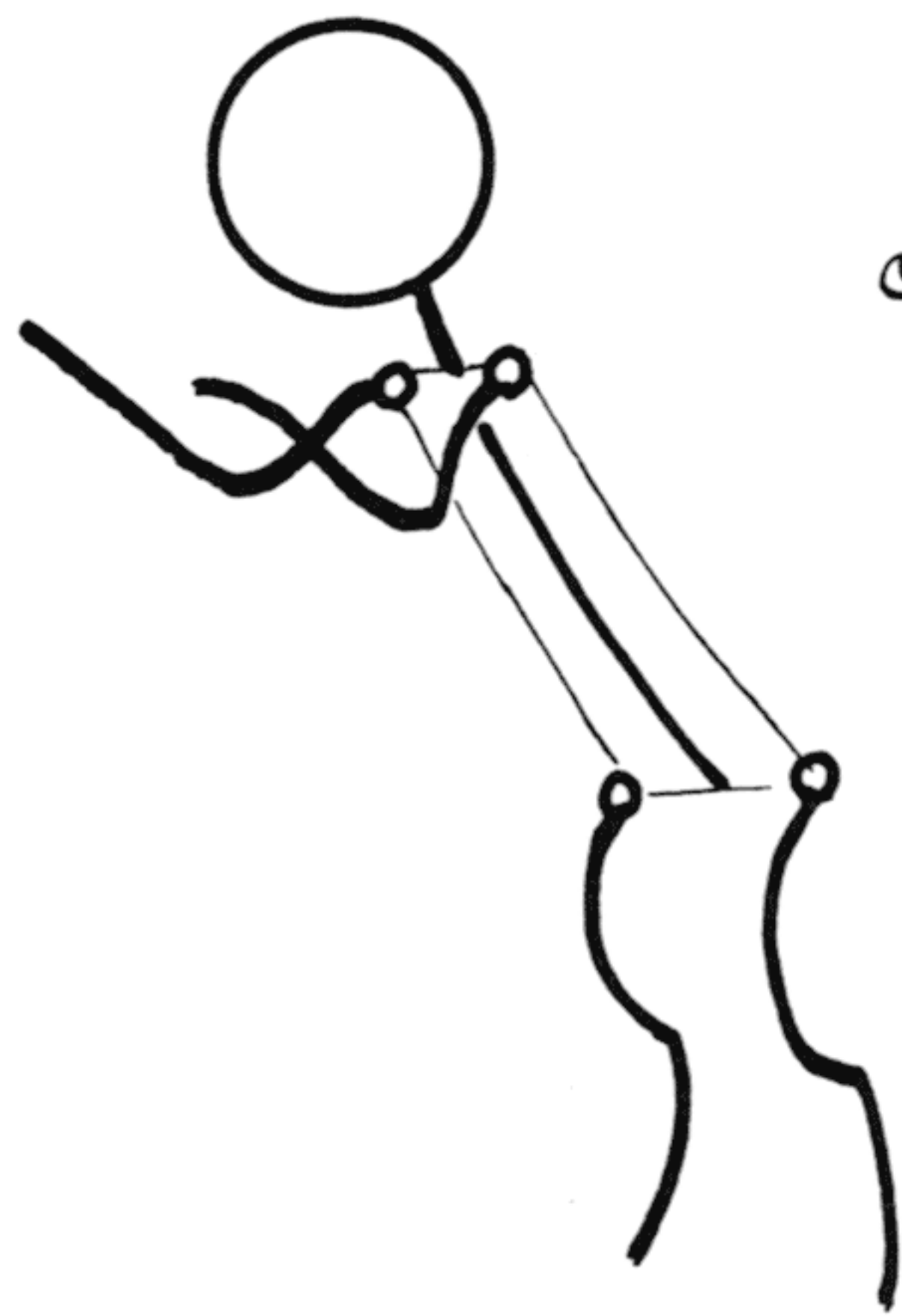
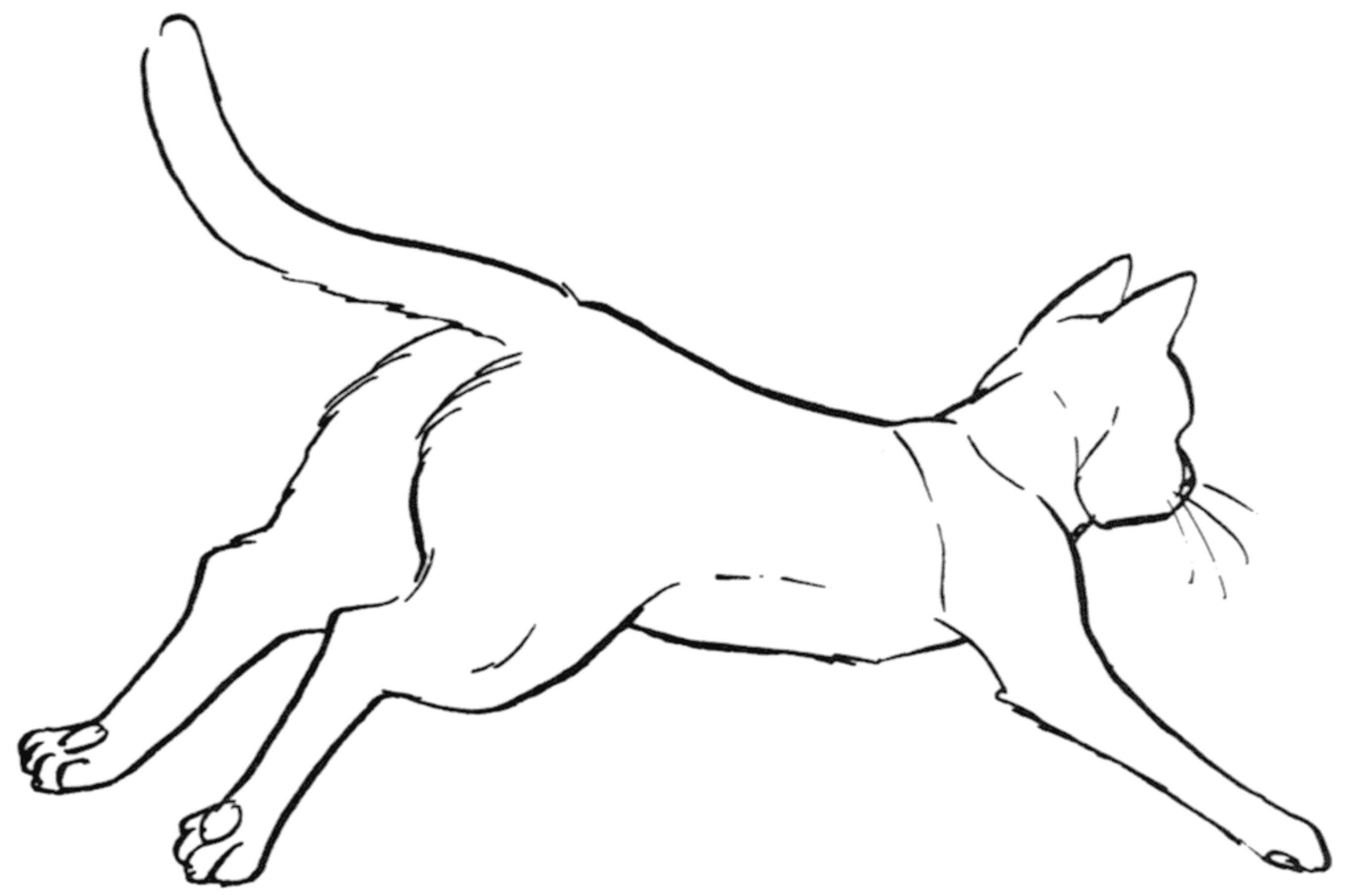
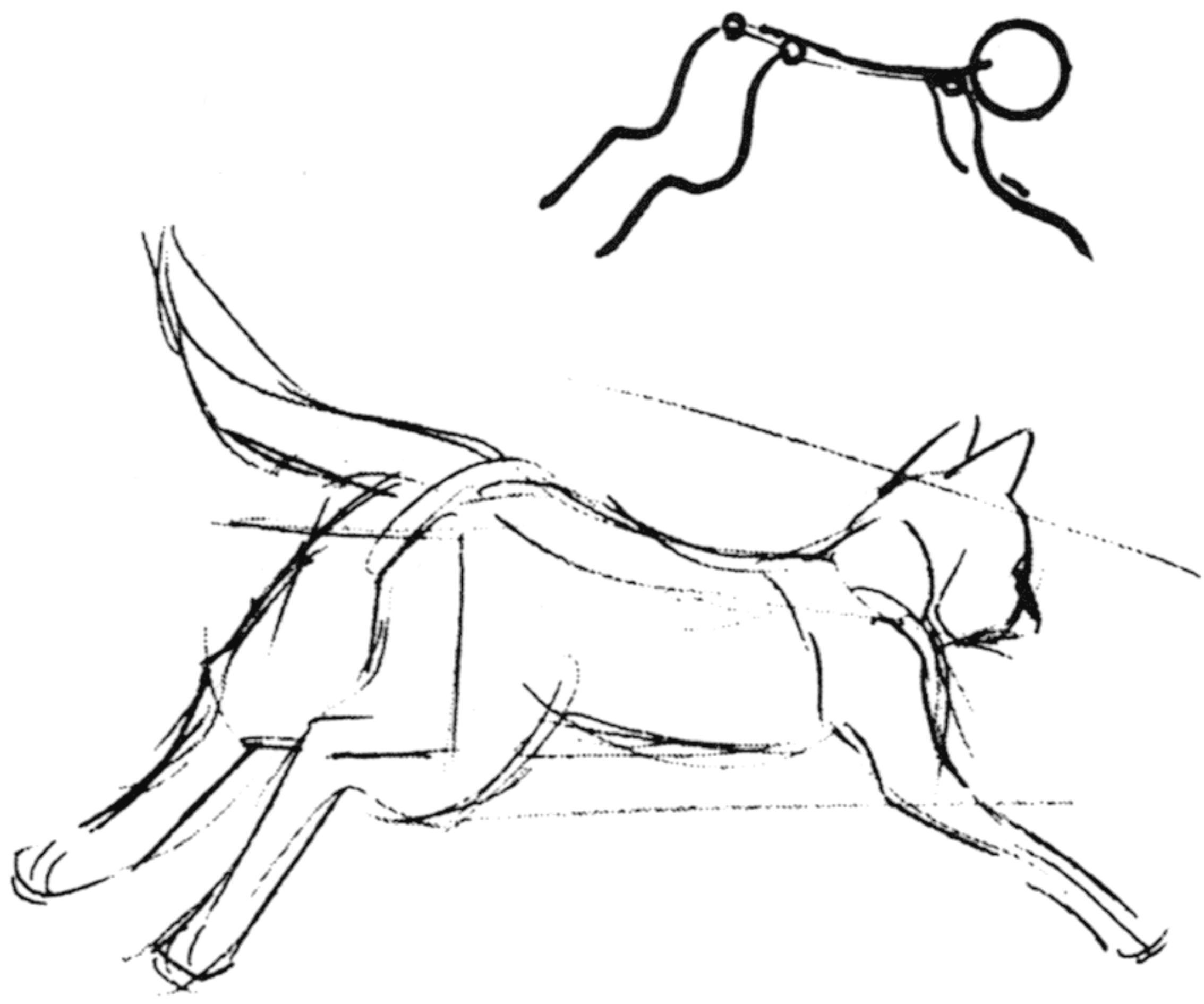
Relaxed Pose

Each animal folds its front paws differently when relaxing.

Front Paws Straight Forward

Dog, cat, mouse, etc.

Front Paws Tucked Underneath

Deer, horse, and other hoofed animals

Lying Down

The animal lies with its head on the ground or resting on its forelegs. The elbow is extended forward or is pulled back.

Dog

Cat

Rolling to the Side

Dogs, cat, deer, and other animals often roll onto their sides to relax and frequently fall asleep in this position.

Assorted Angles and Leg Positions

Animal Faces

Model Animal Faces →

Dog: Rectangular

Cat: Oval (longish horizontally)

Hamster, ferret: Roundish triangle

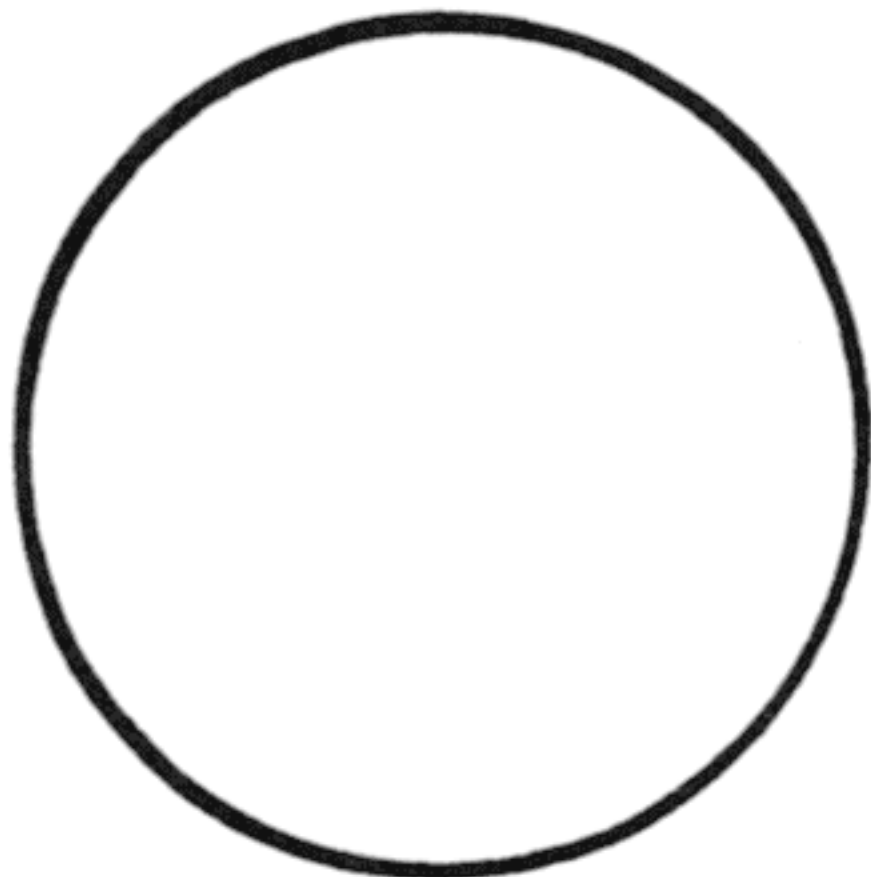
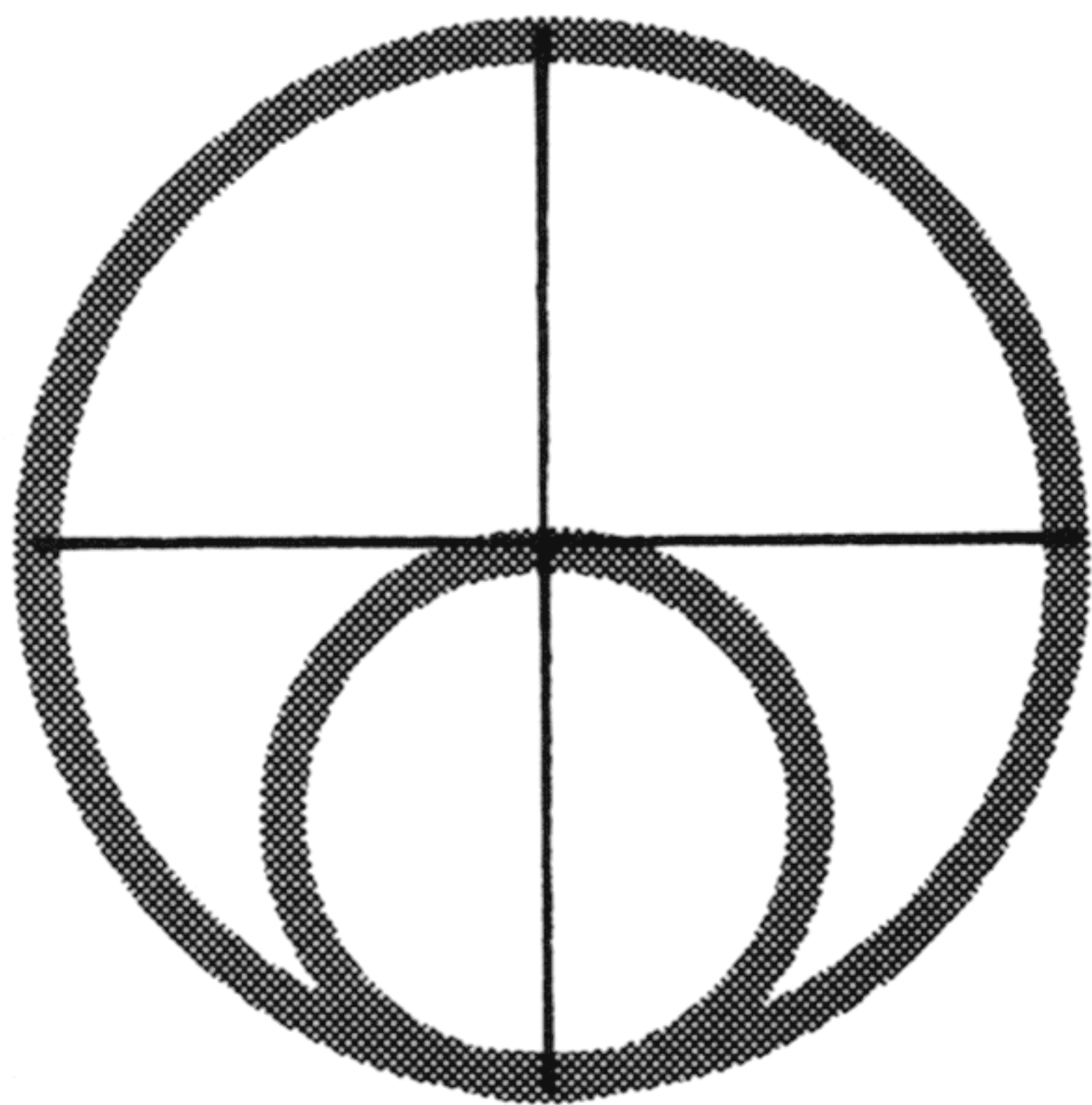
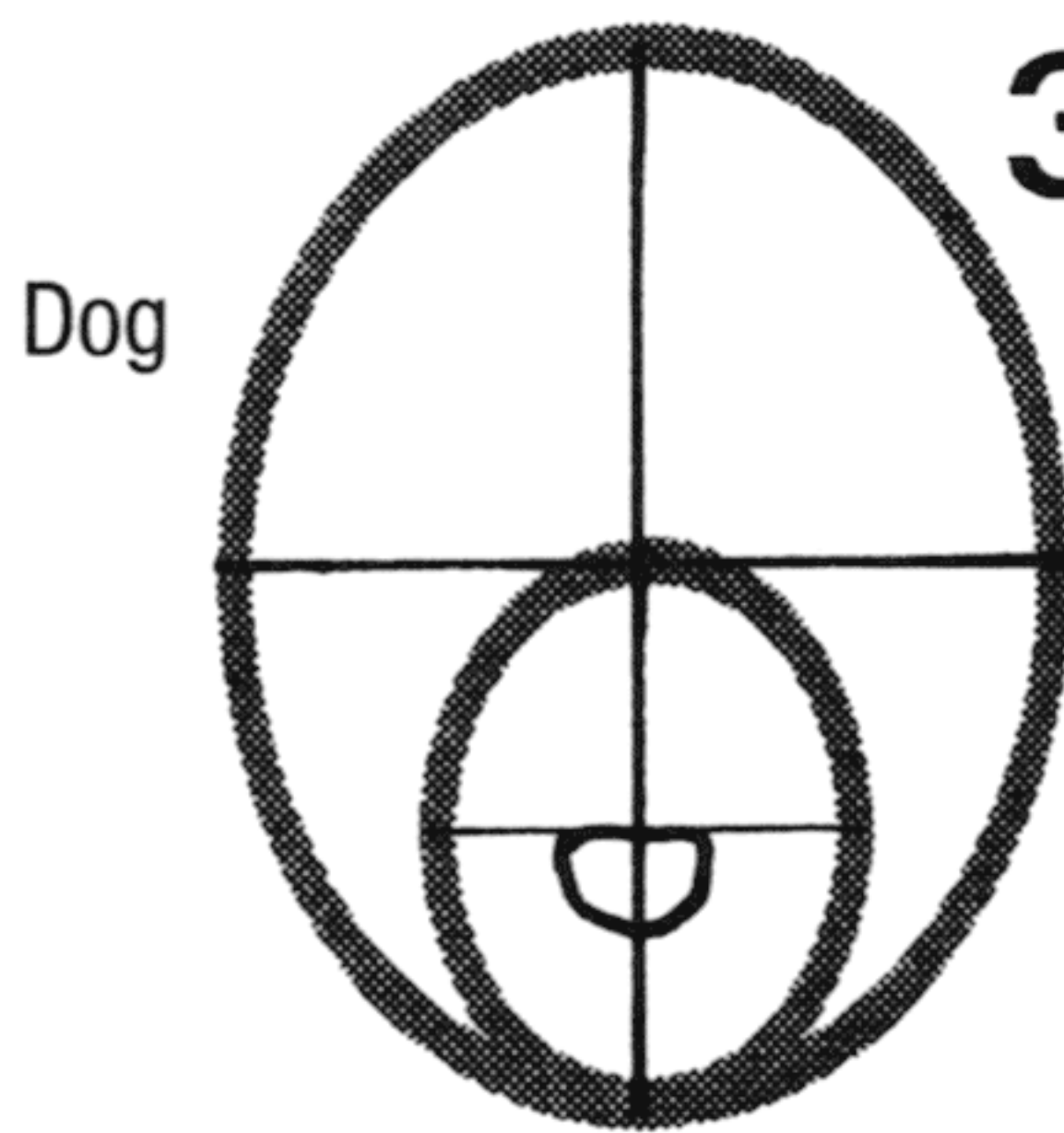
Rabbit: Trapezoidal (roundish triangle)

These animals have similar head shapes:

Nose

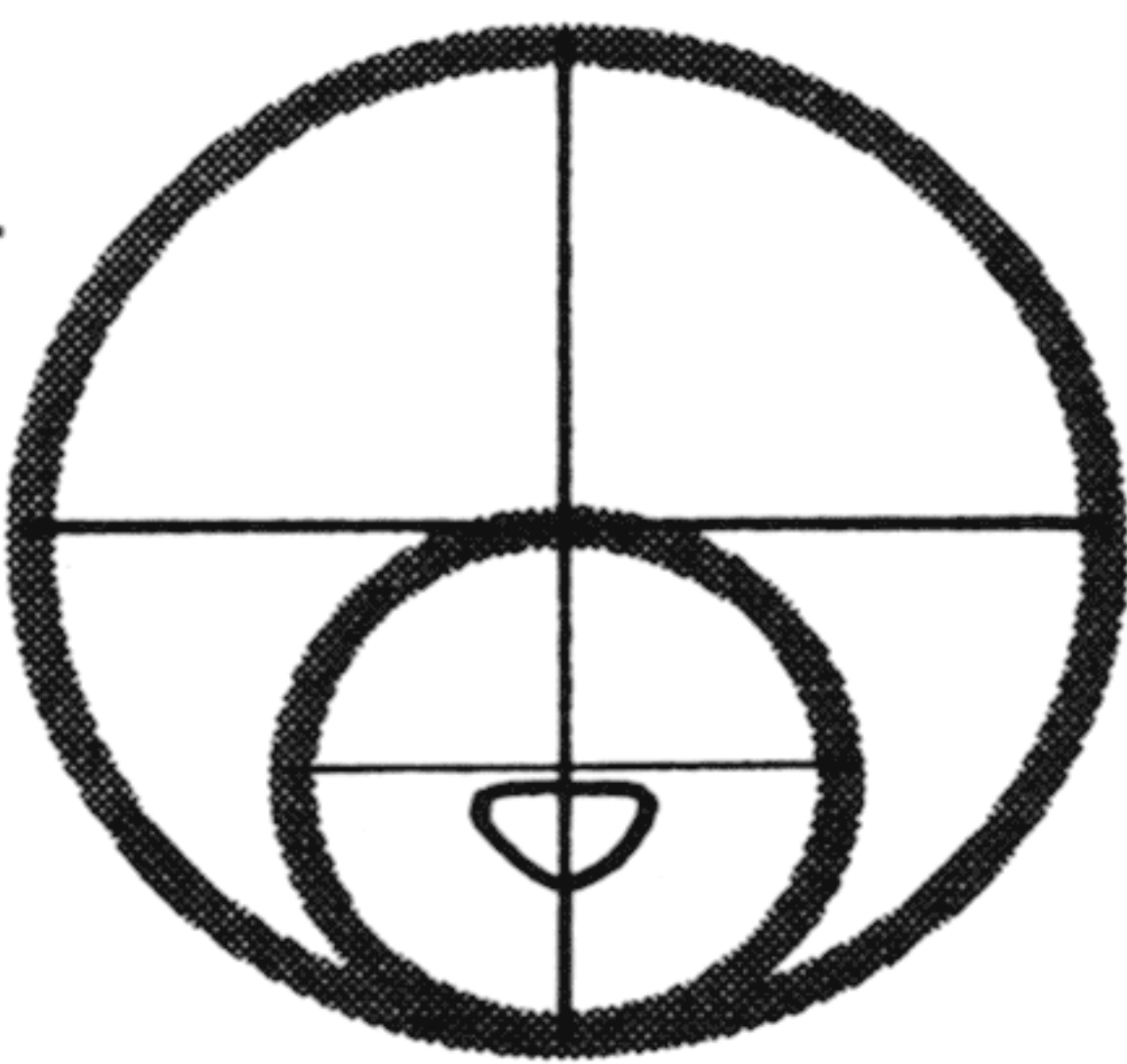
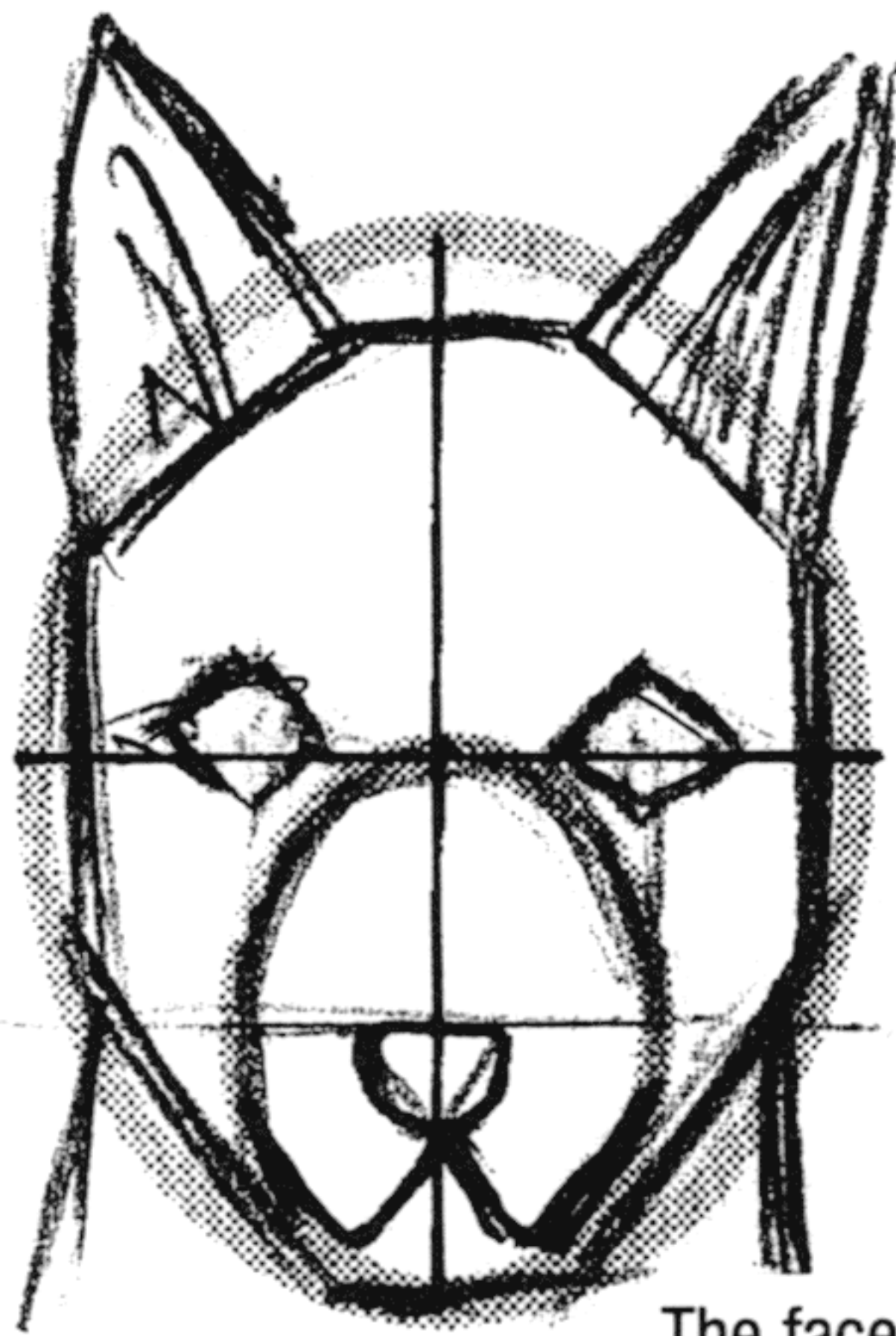
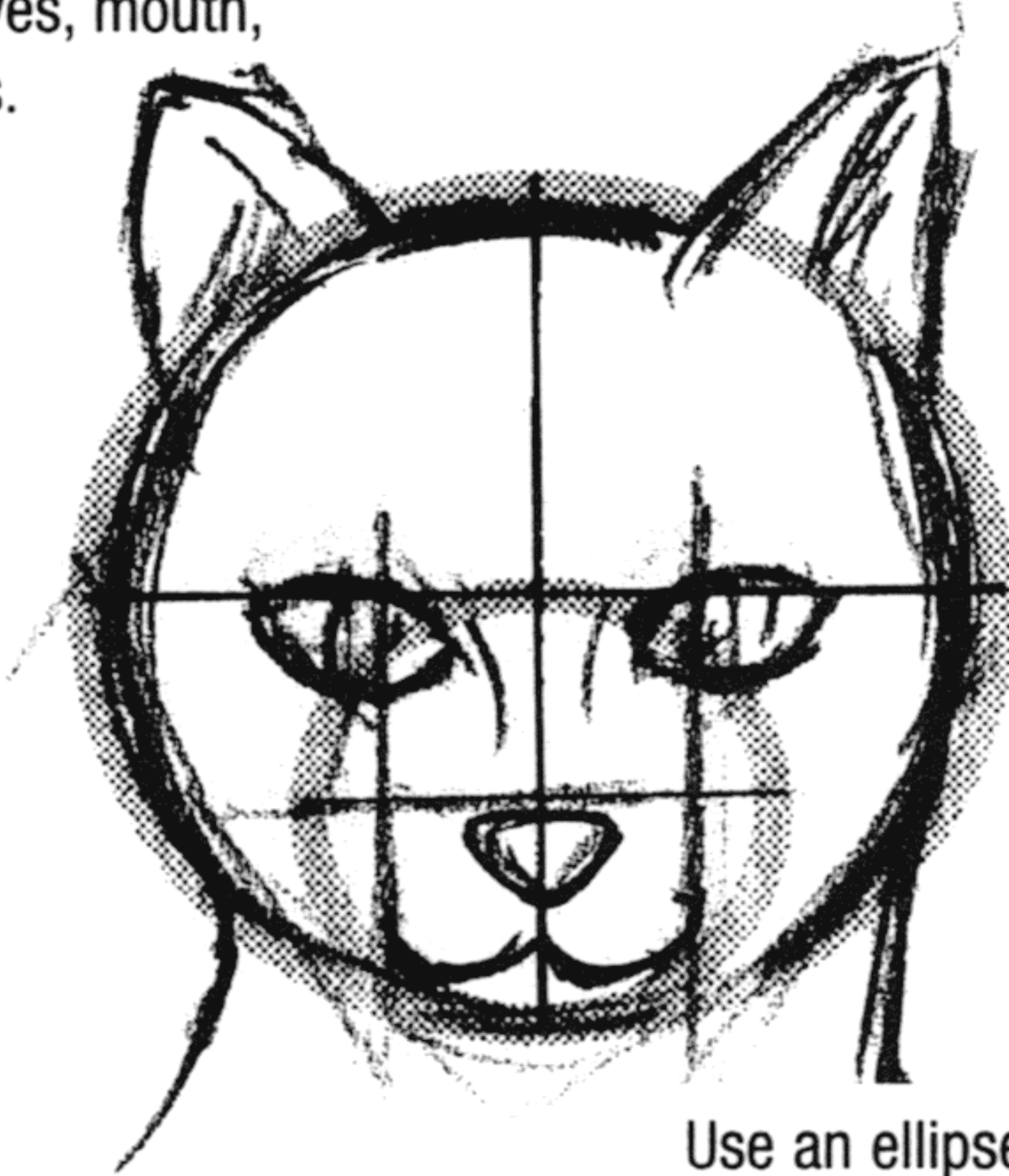
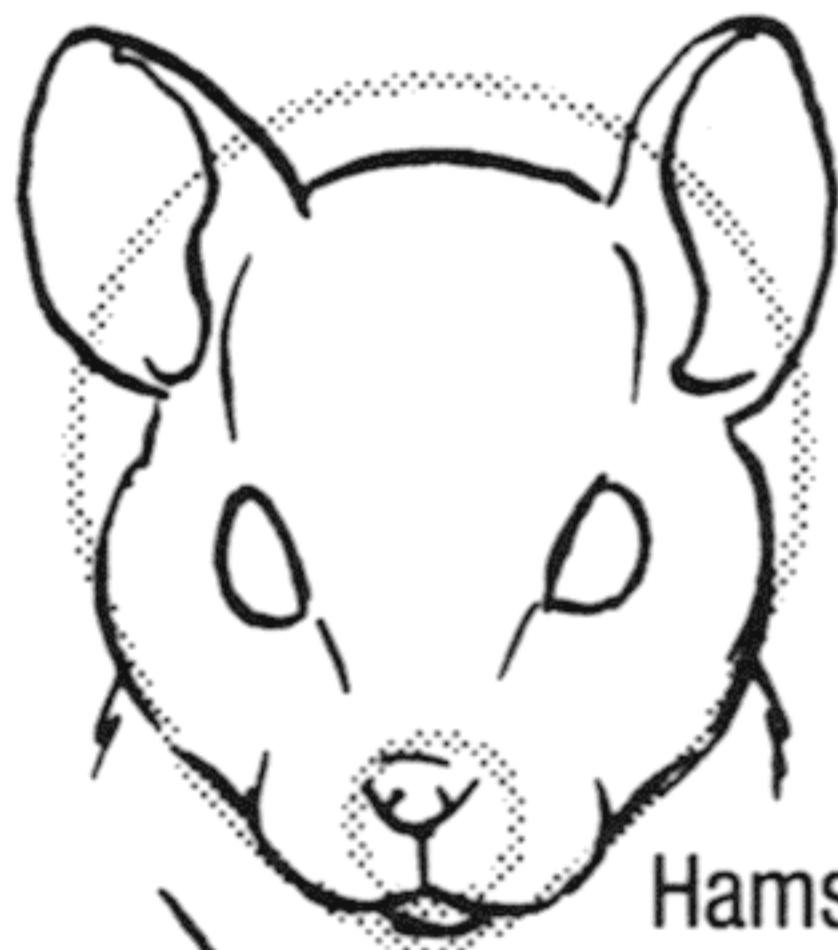
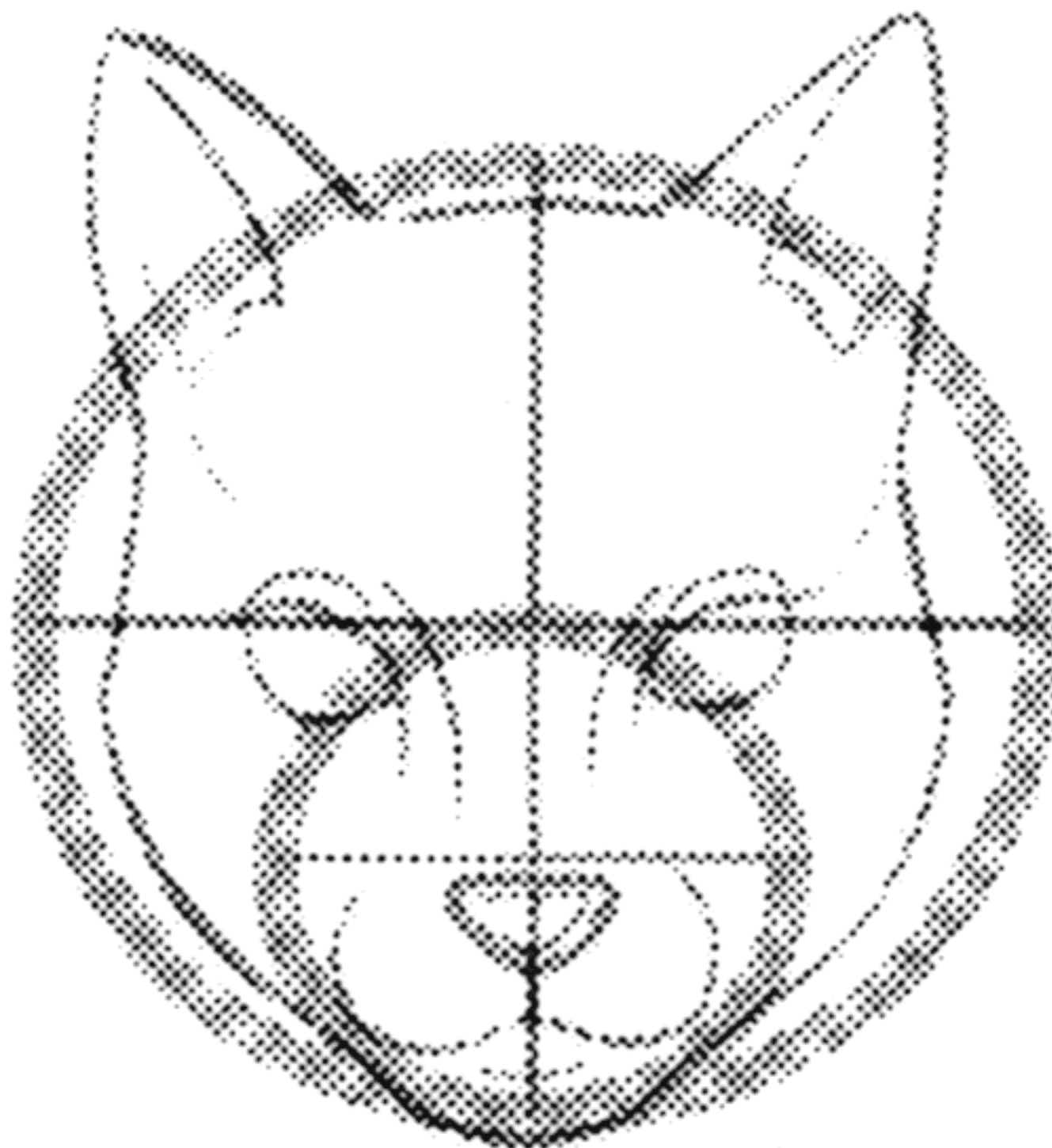
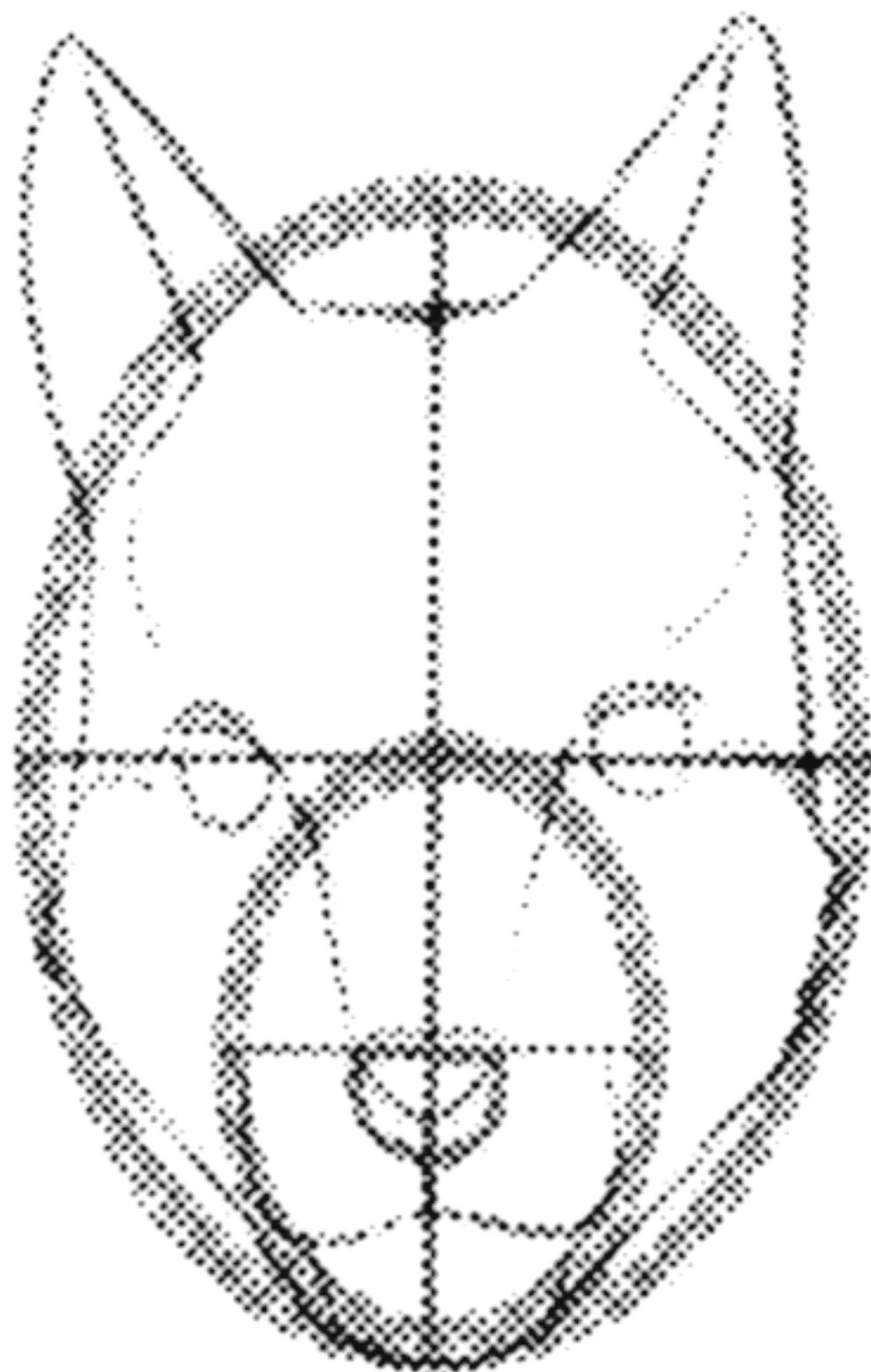
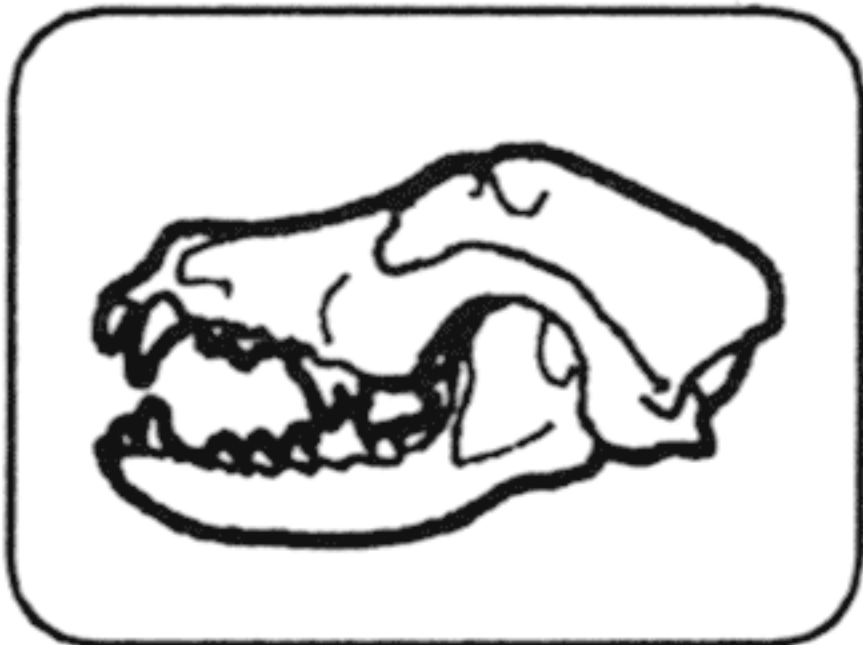
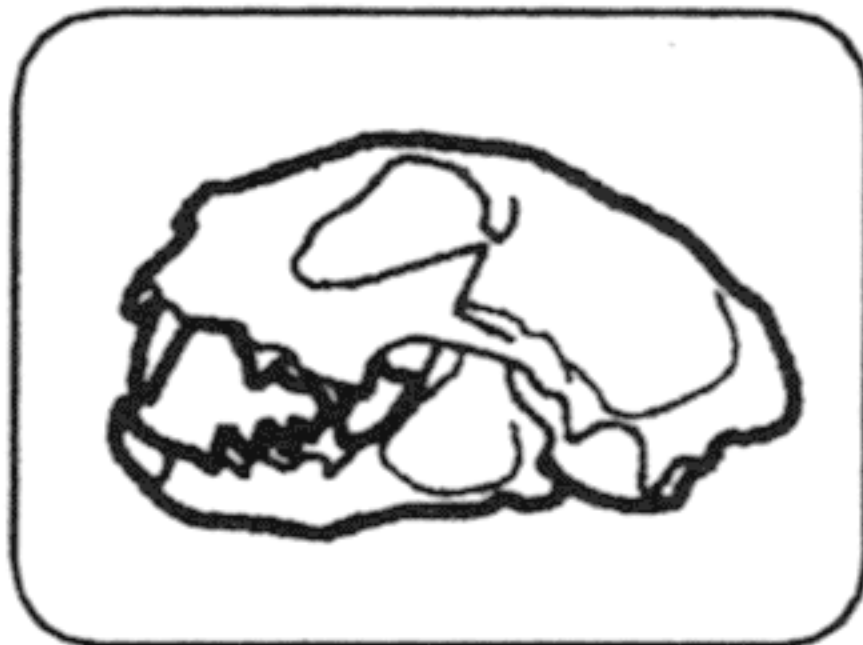
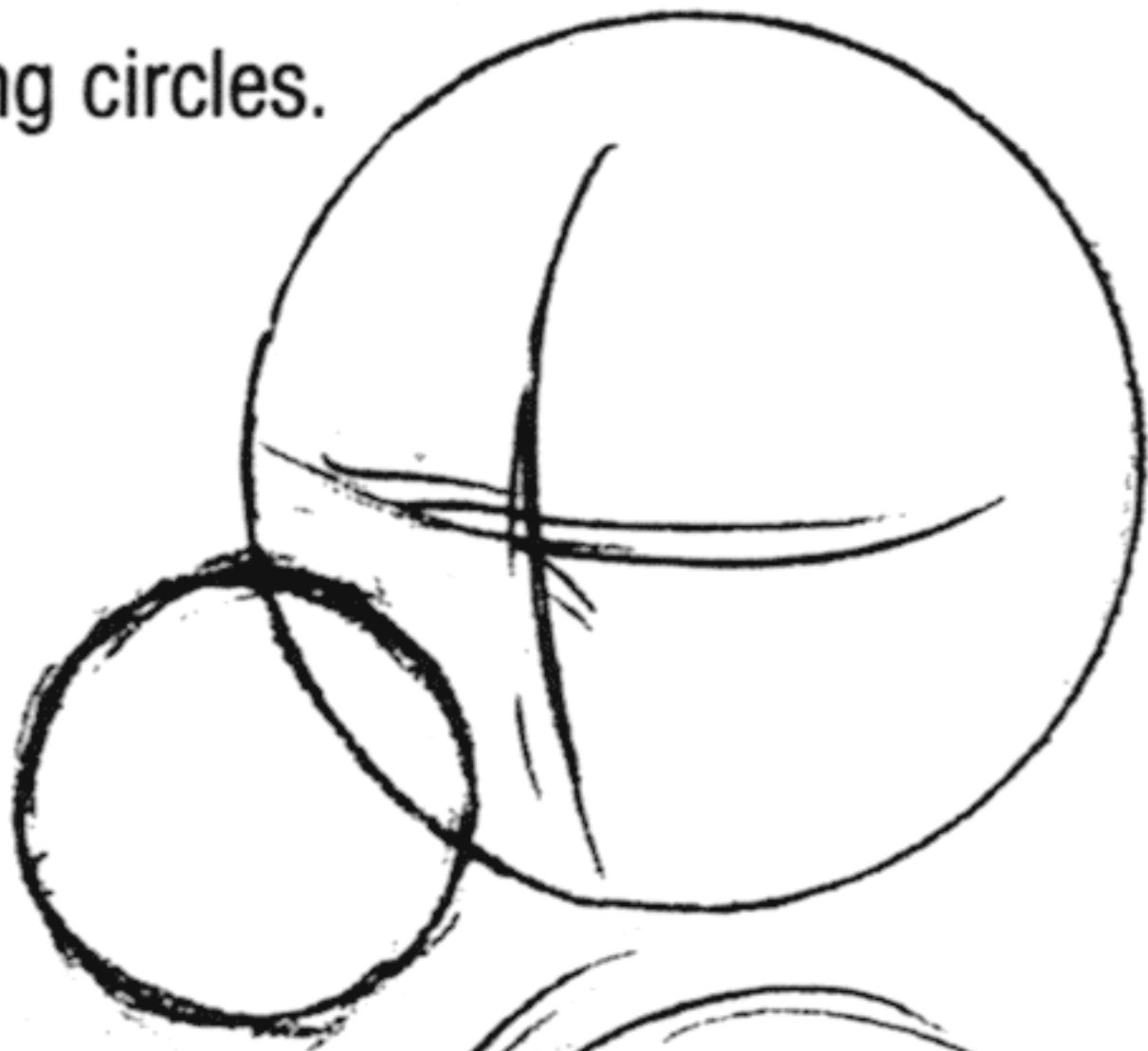
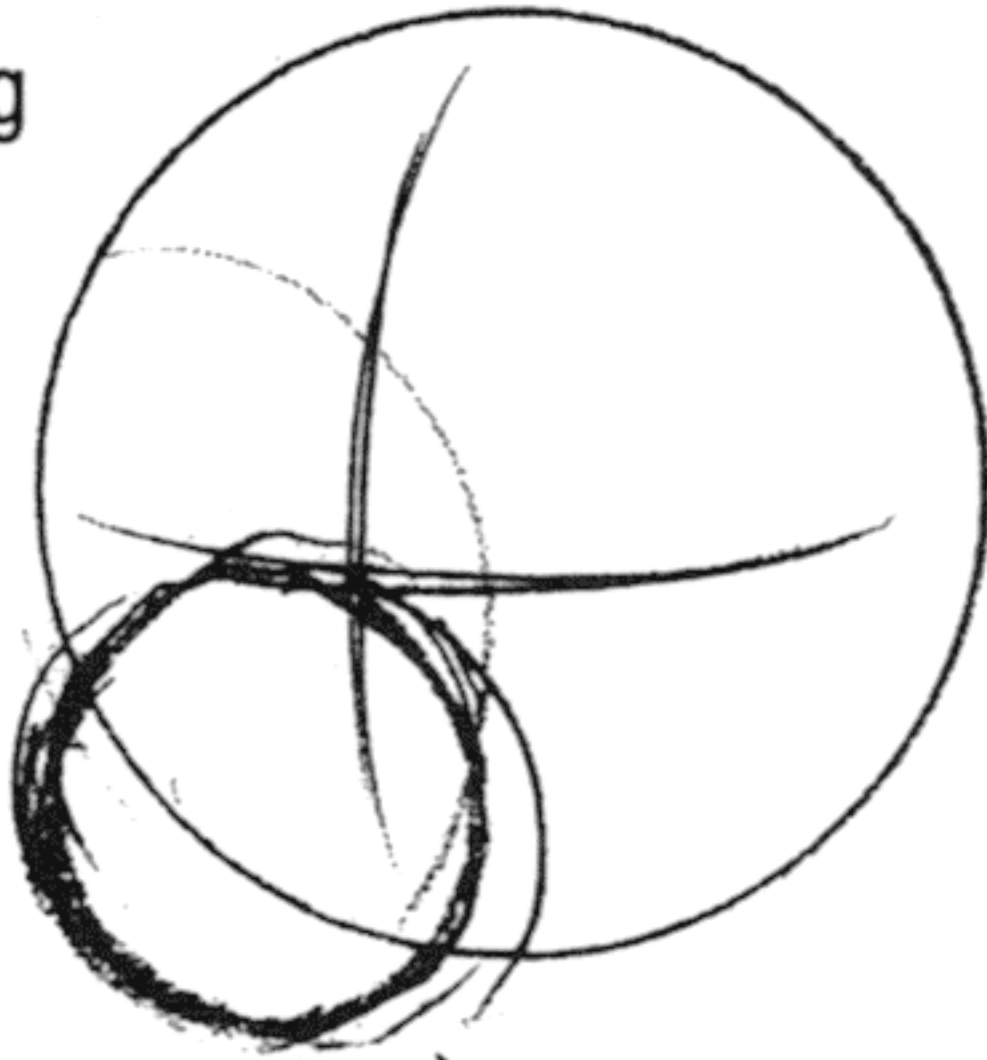
Hamster

Rabbit

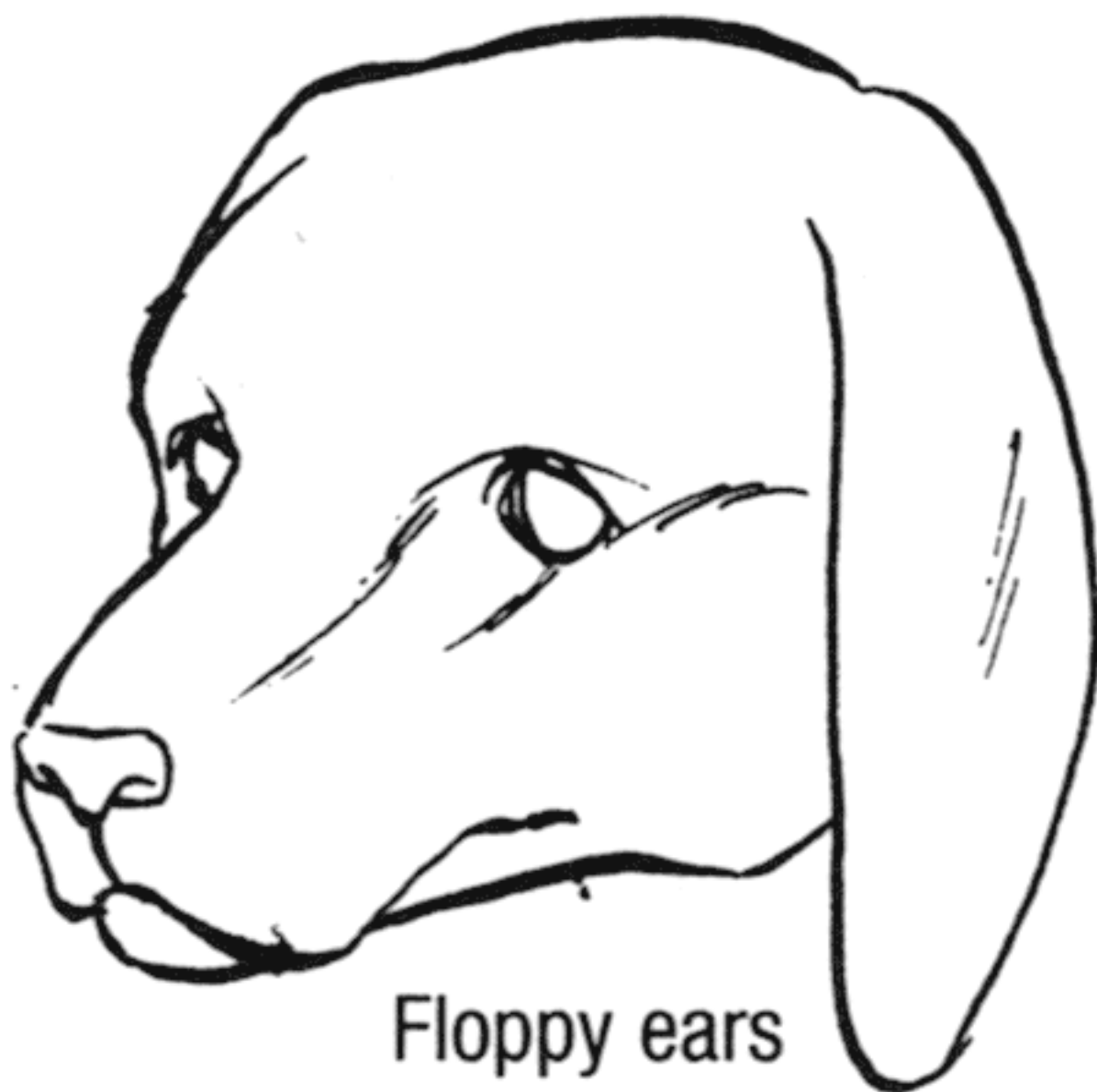
Ferret

1. Start with a circle.

2. Add a cross and draw a circle in the lower half.

3. Determine the nose's positioning.

Dog

Cat

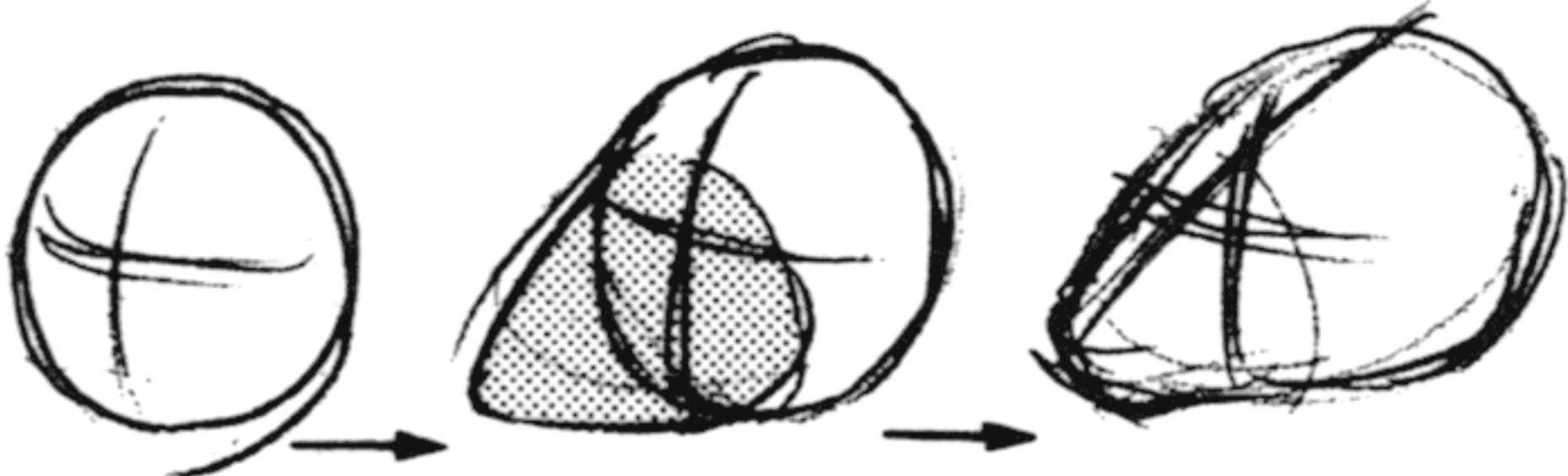
From a front view, the nose should be either centered on the lower half of the face or somewhere below center.

4. Draw the contours of the eyes, mouth, and ears.

The face should be hexagonal, but vertically longish.

Use an ellipse that is long horizontally.

Dog Faces: Dogs' noses determine the length of their faces.

Cat Faces: Cats have shorter faces than dogs.

Draw two overlapping circles.

Draw two circles overlapping to a considerable degree.

Draw the face's outline.

Sketch guidelines for the face's center.

Pointed ears

Floppy ears

With nose bridge

Without nose bridge

Ferret, Hamster, and Rabbit Faces

Draw a circle with a beak.

Ferrets have small ears.

Make the mouth, eyes, and ears larger for a hamster.

For the rabbit, make the mouth large and add bunny ears.

Stylizing to Create Facial Expressions

Realistic ferret

Stylized ferret

Modifying the eyes creates a more *manga*-esque face.

Assorted Expressions

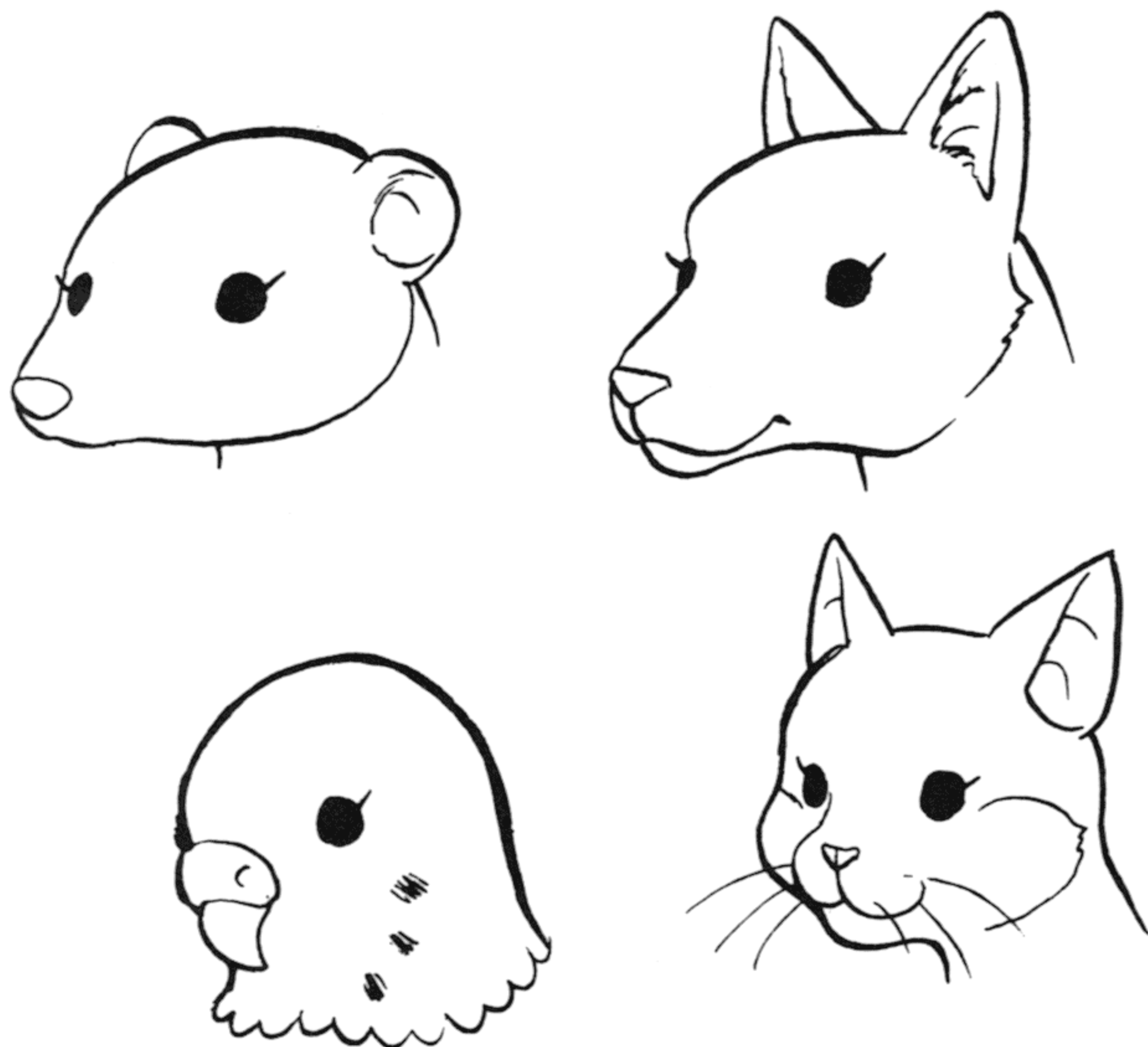
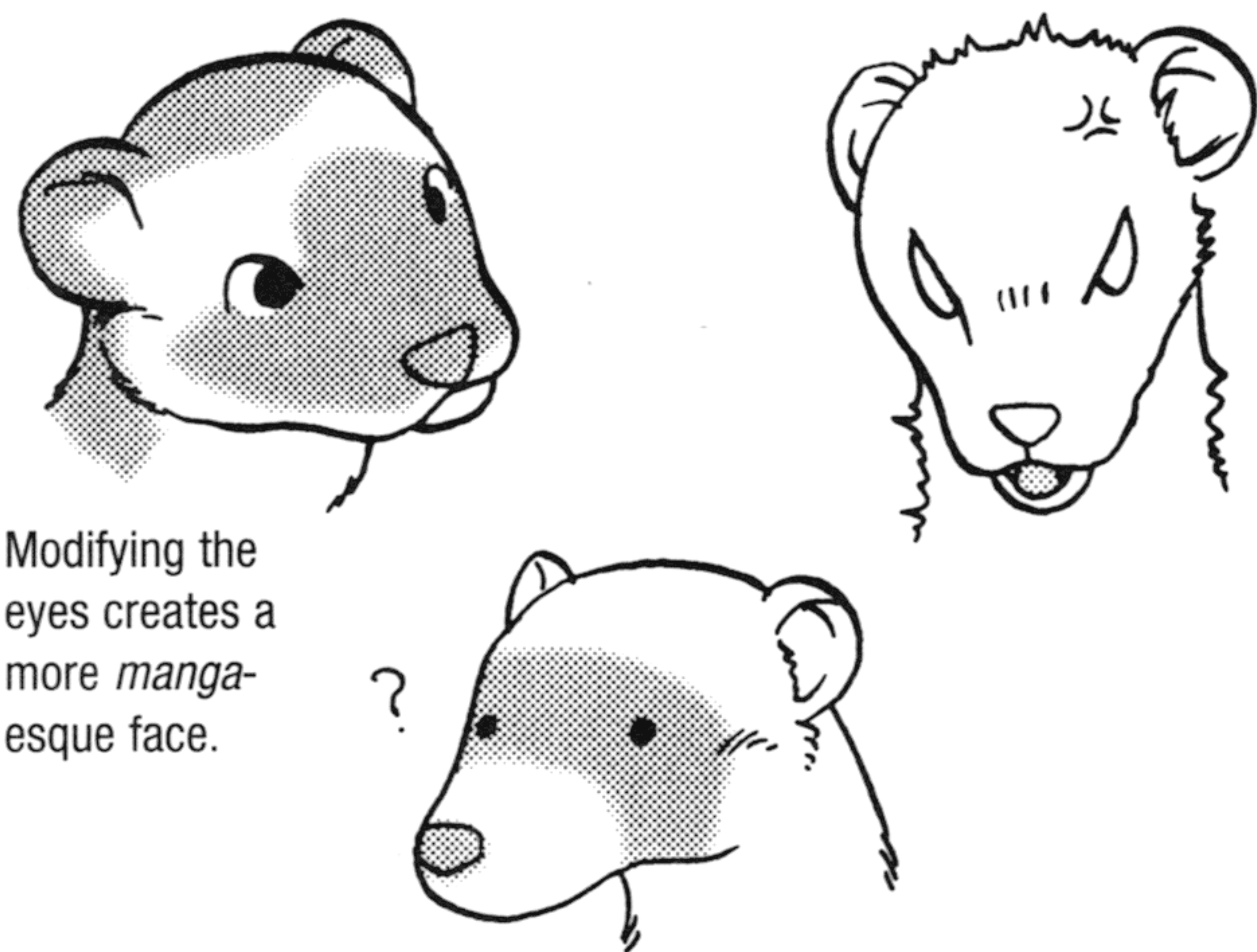
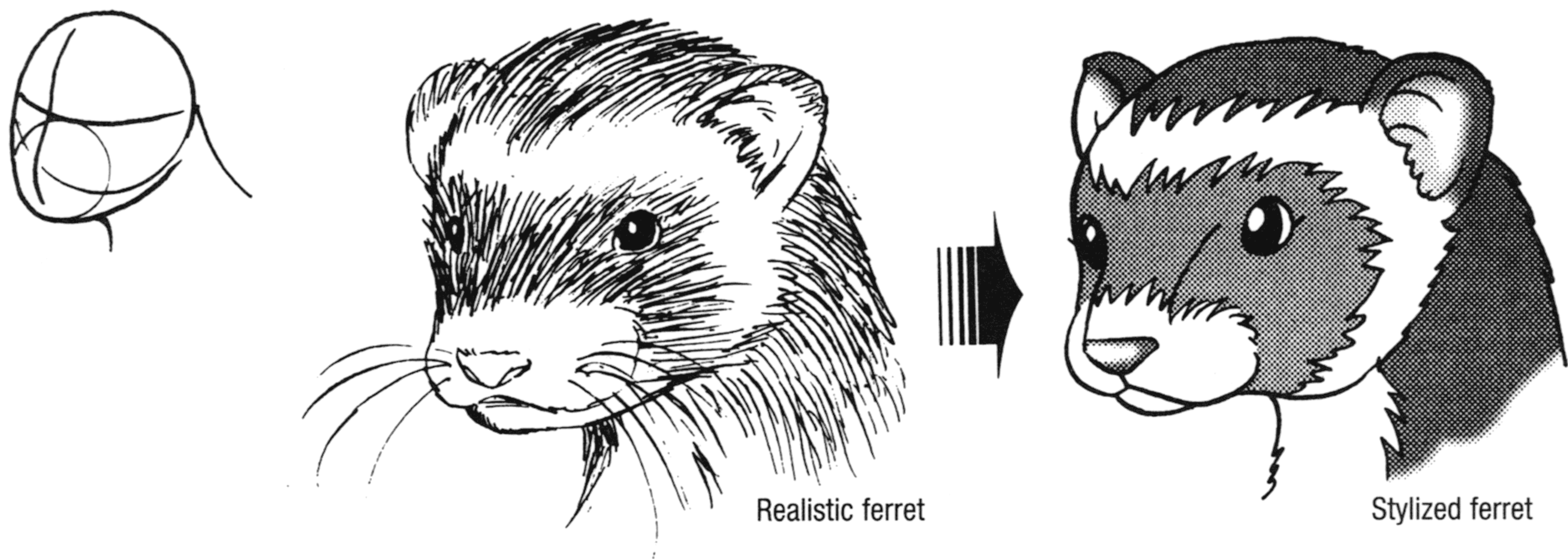
Chipper

Angry

Grumbling

Sleepy

Worried

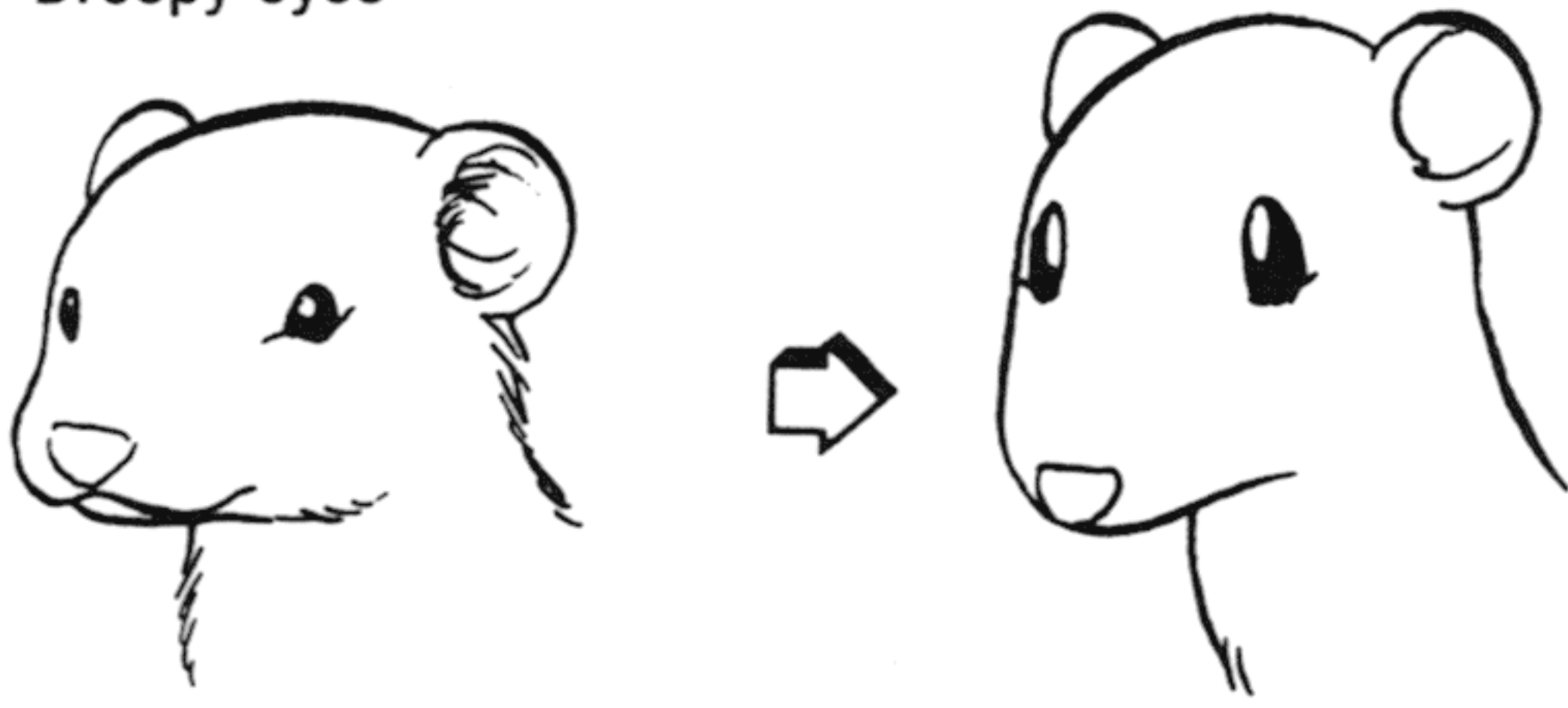
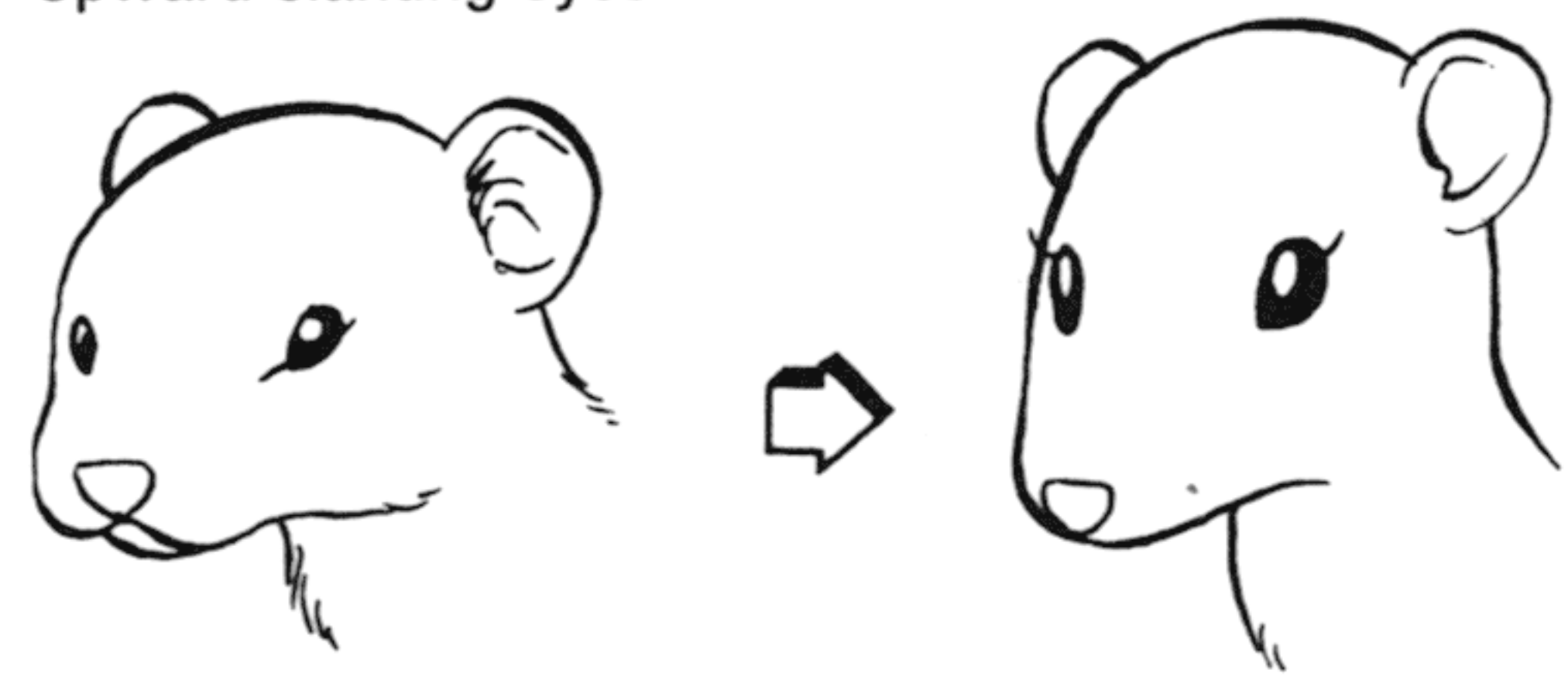
Prim

Forlorn

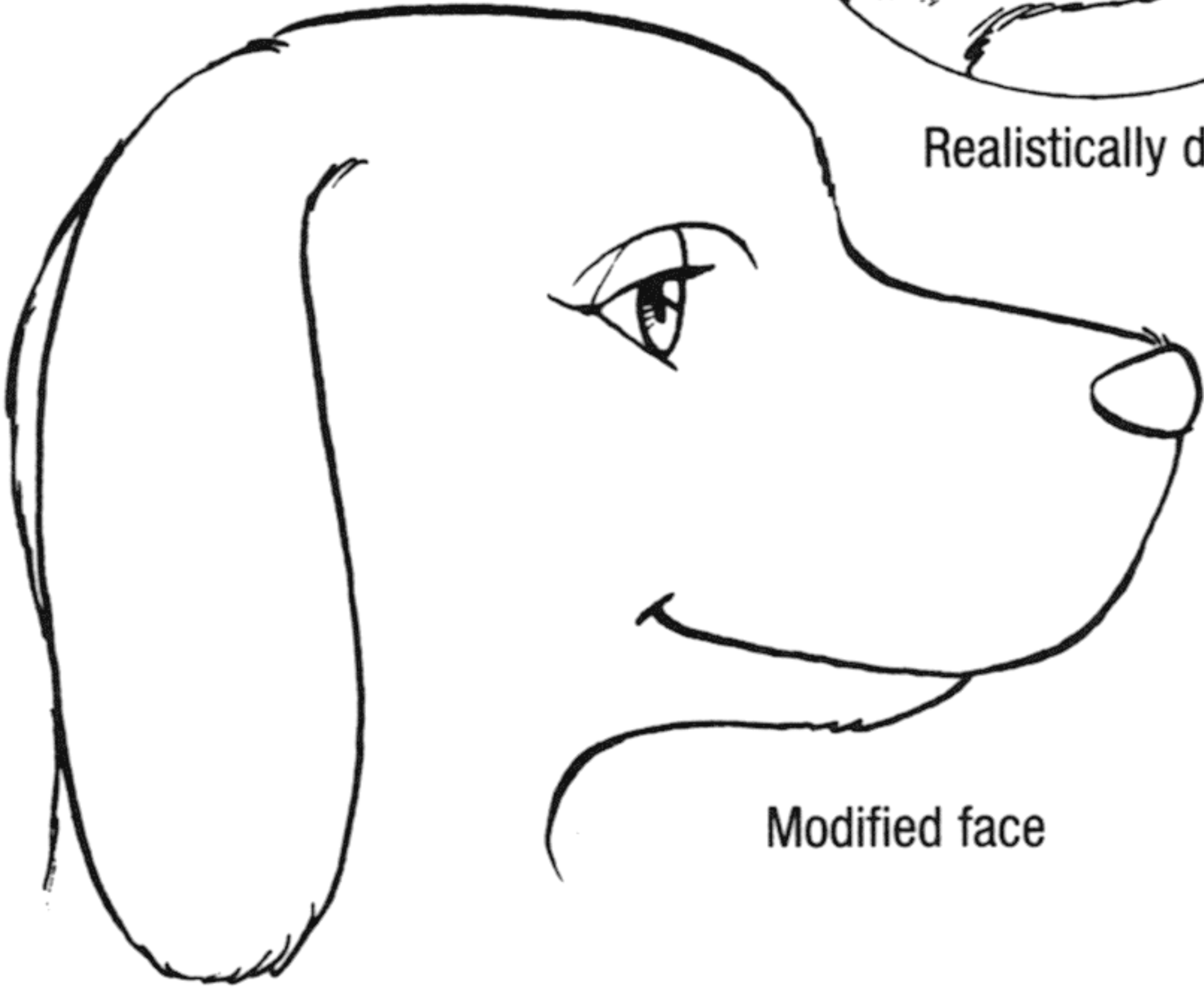
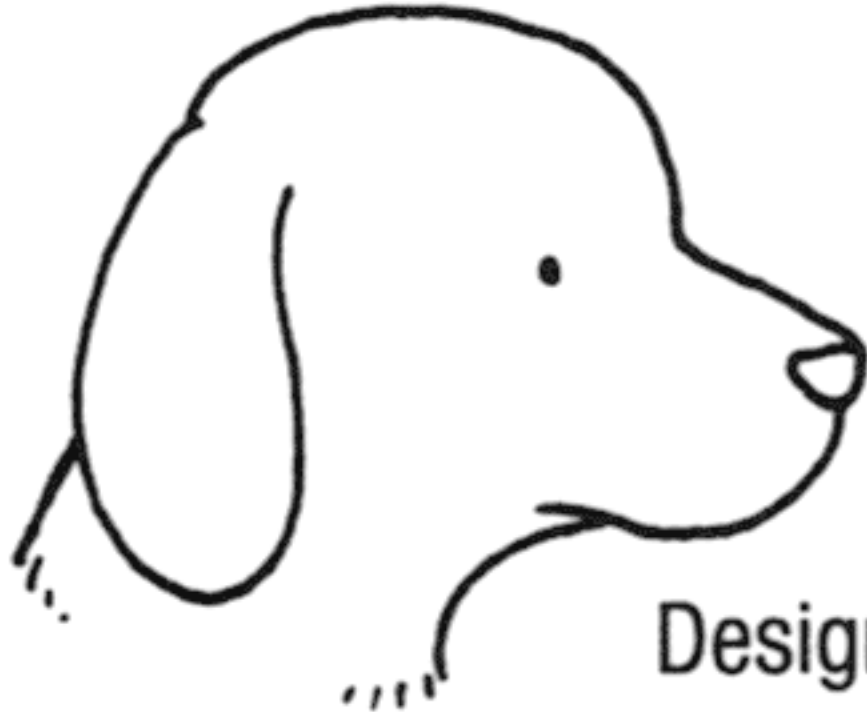
Overjoyed

You may give whichever sort of eyes you prefer to any animal.

Maximizing Distinguishing Features

An effective way to stylize an animal is to take full advantage of each pet or animal's individual physical differences and distinguishing personality traits.

Droopy eyes

Upward slanting eyes

Enlarging the irises/pupils will make even upward slanting eyes look cute.

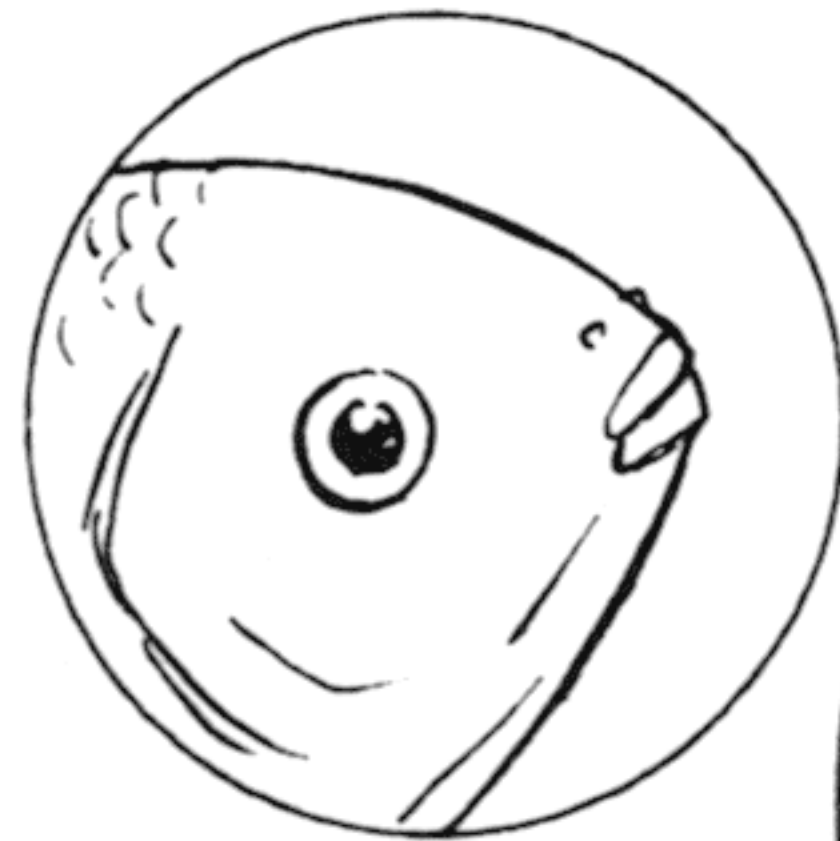
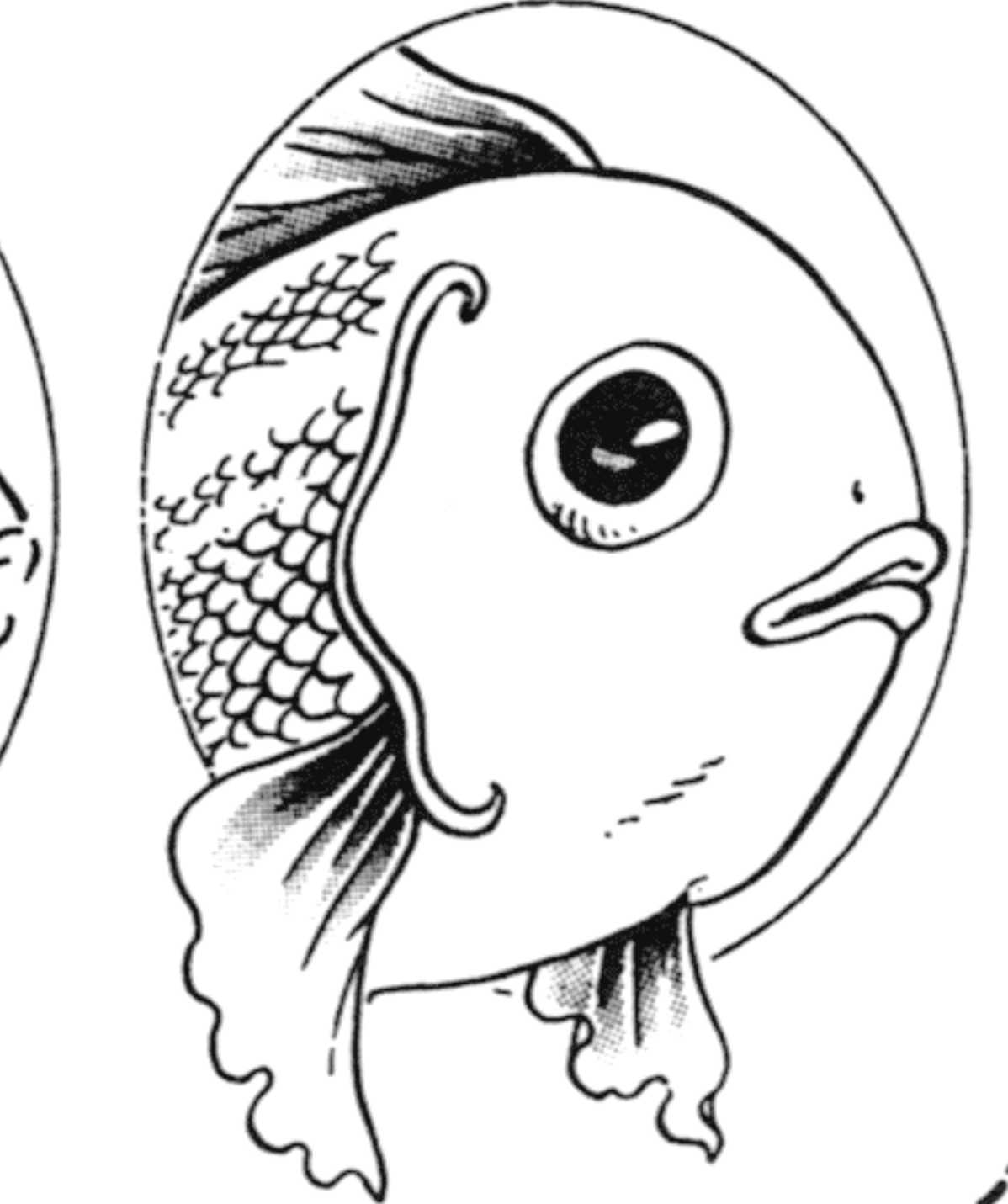
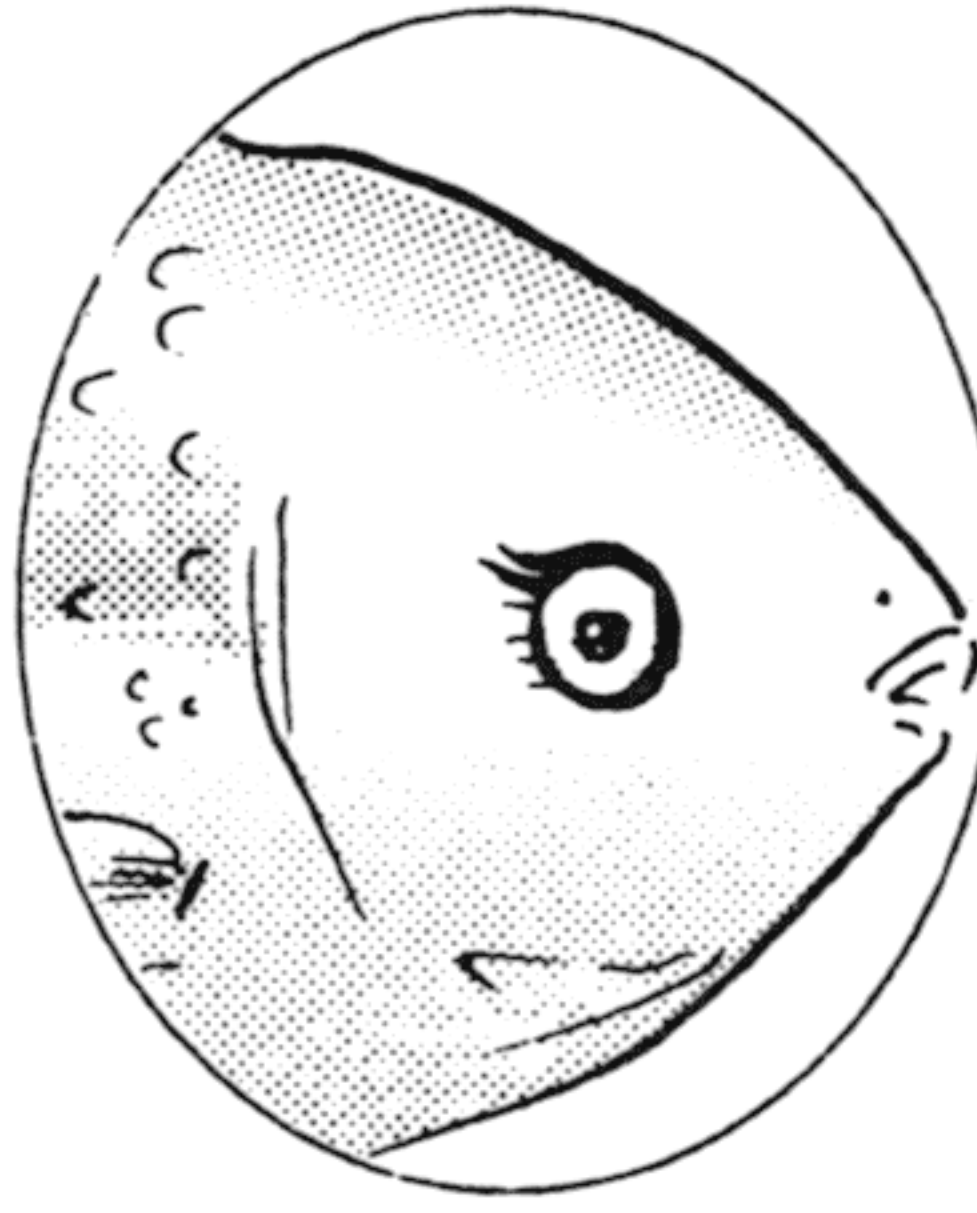
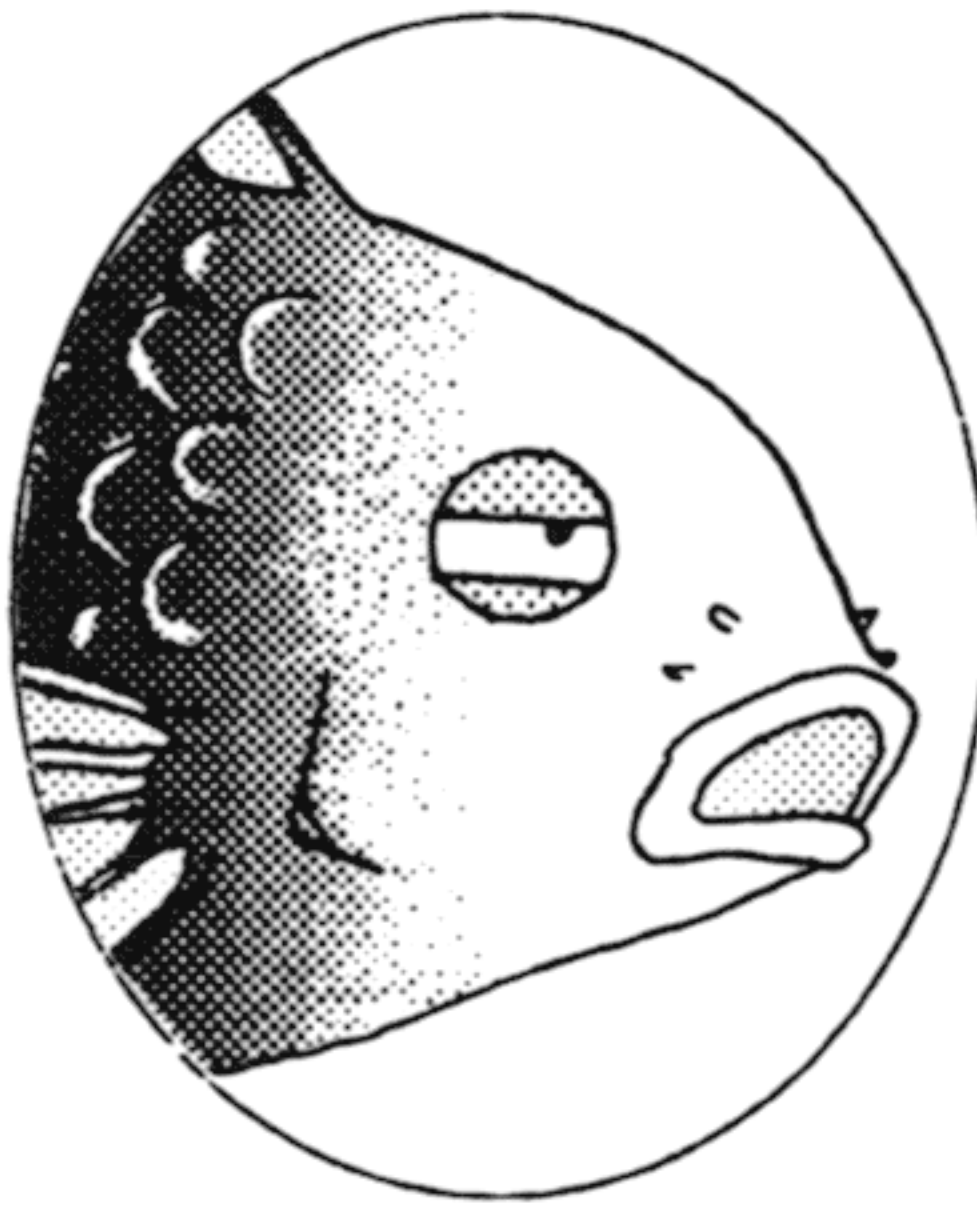
Realistically drawn face

Modified face

Design face

Sometimes the face can be made to look cute by using dots for the eyes.

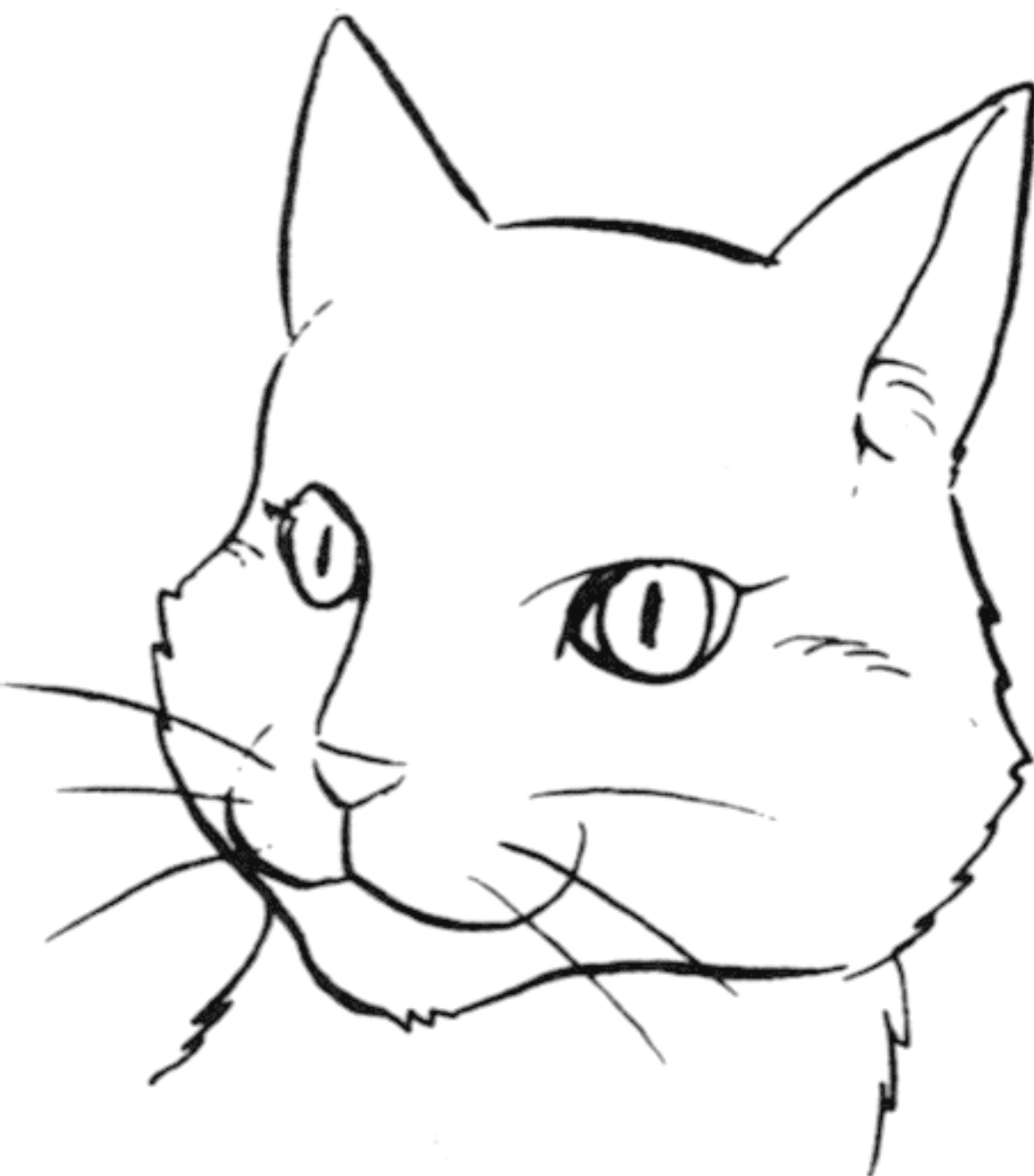
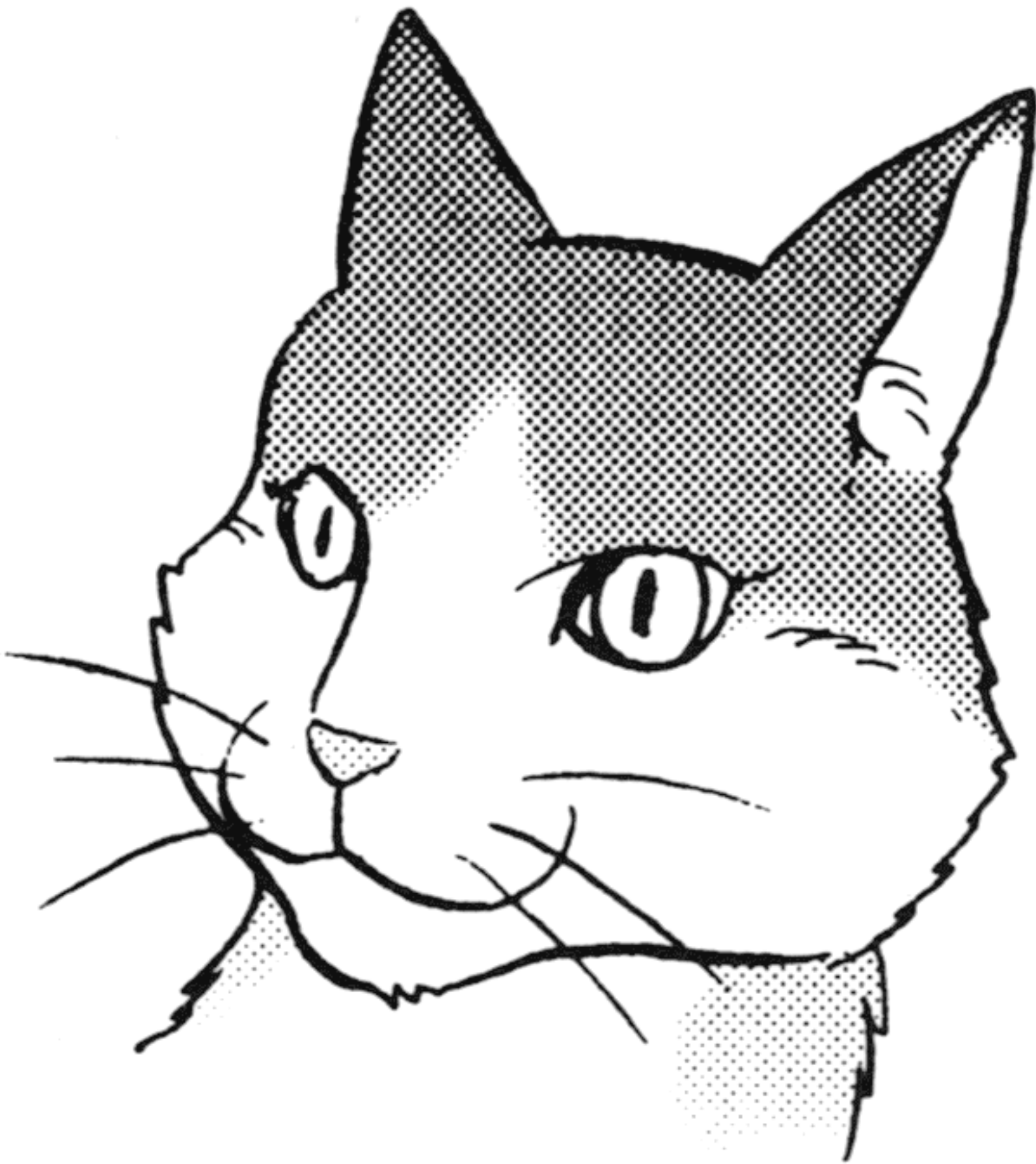
Tips in Making Animal Cute

- Draw the eyes bigger than in real life.
- Make the irises/pupils big.
- Add eyelashes.

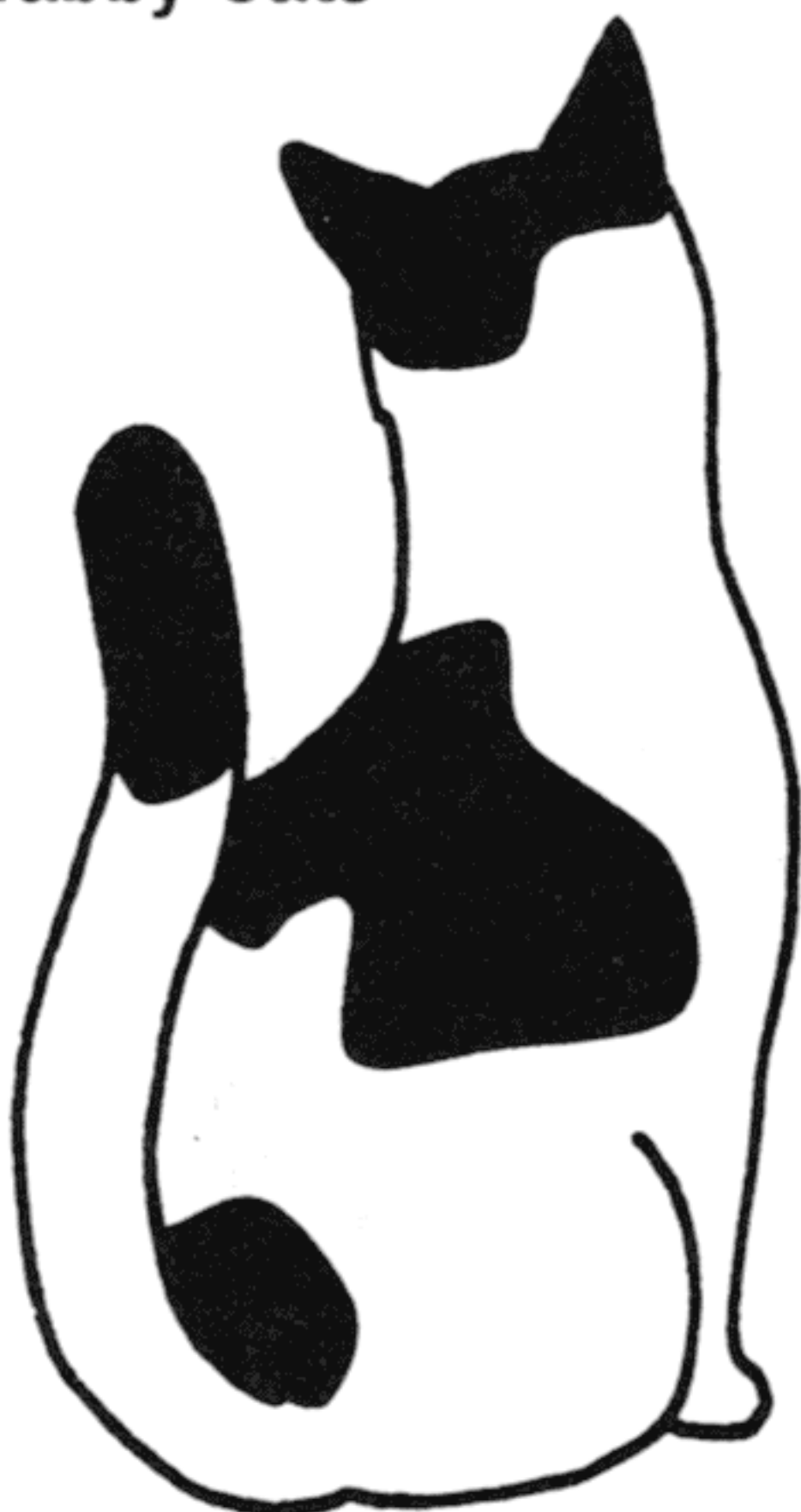
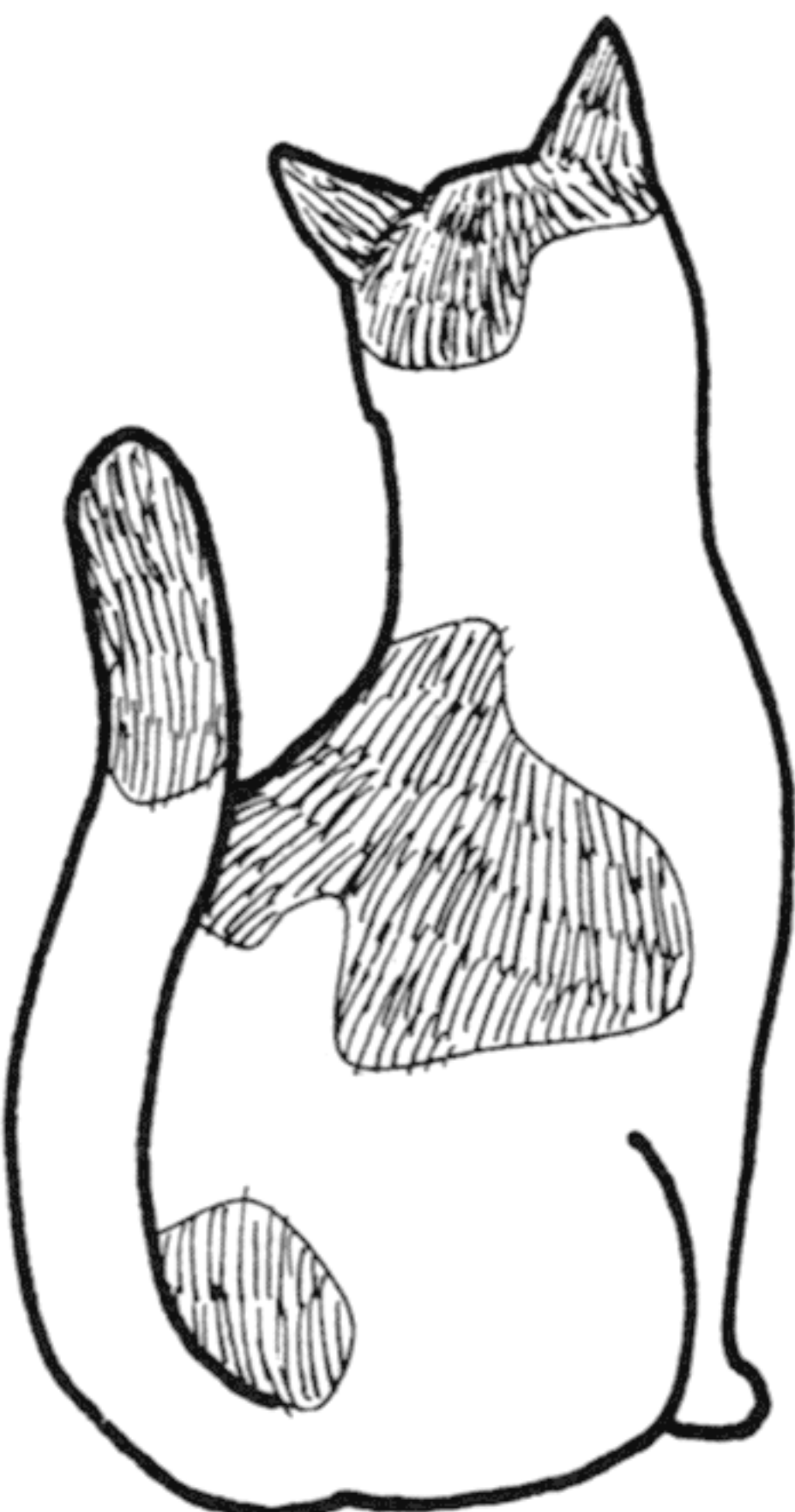
Assorted Eyes

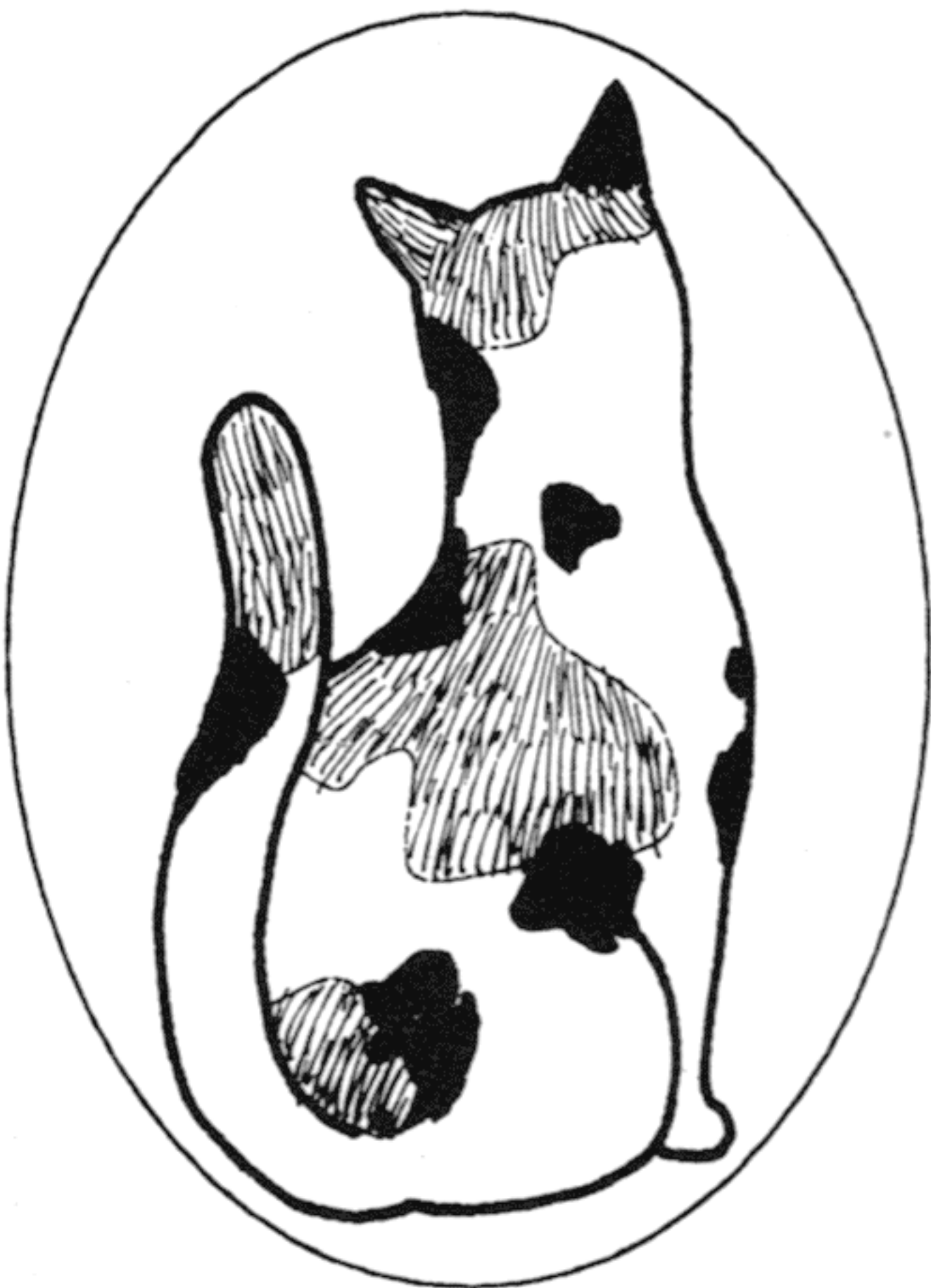
On a real cat from the side, the eye would appear to be a clear crystal, and the iris and pupil would scarcely be visible.

The common fish has neither eyelids nor eyelashes.

Suggesting Coats and Coat Patterns: Animal Colors

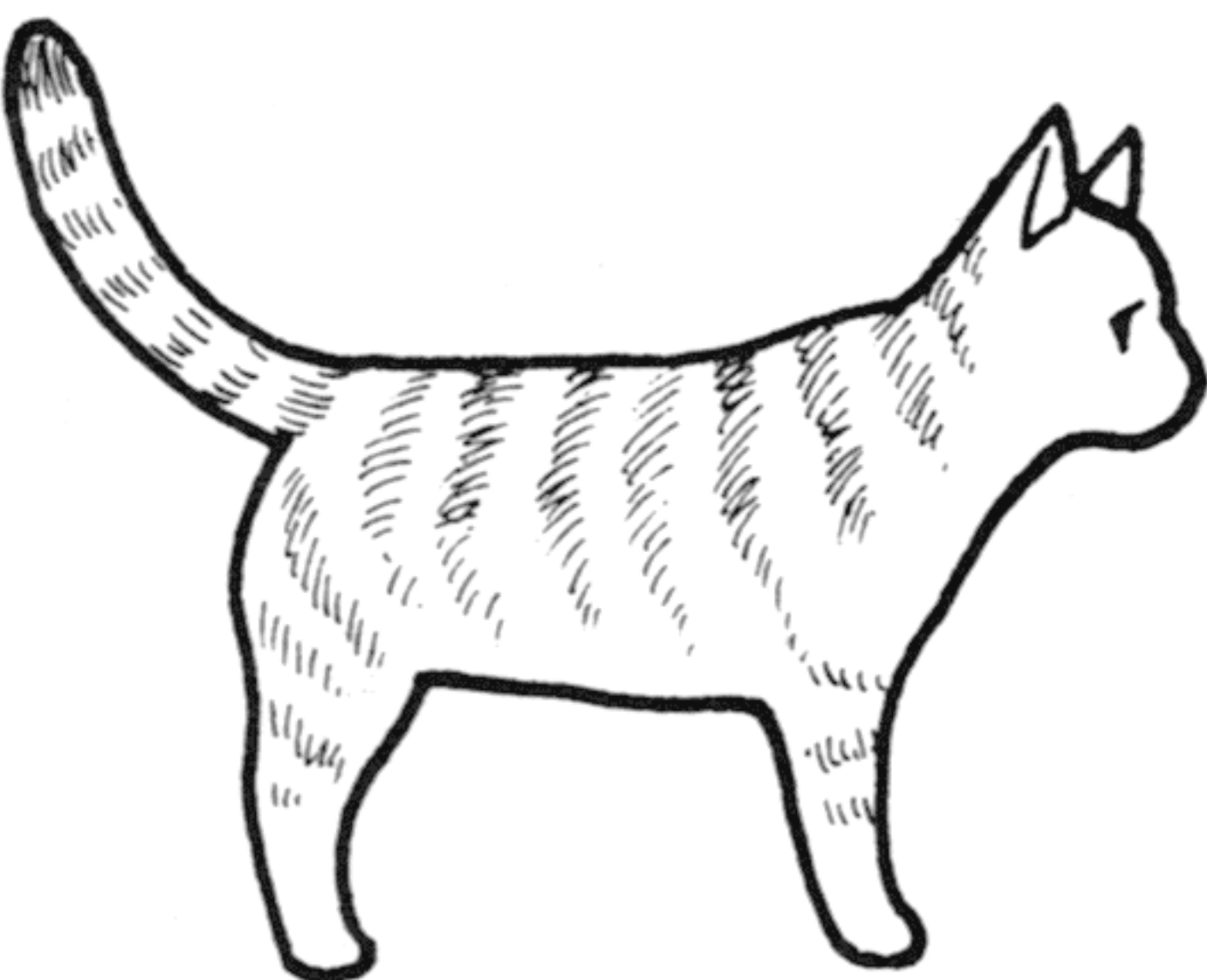
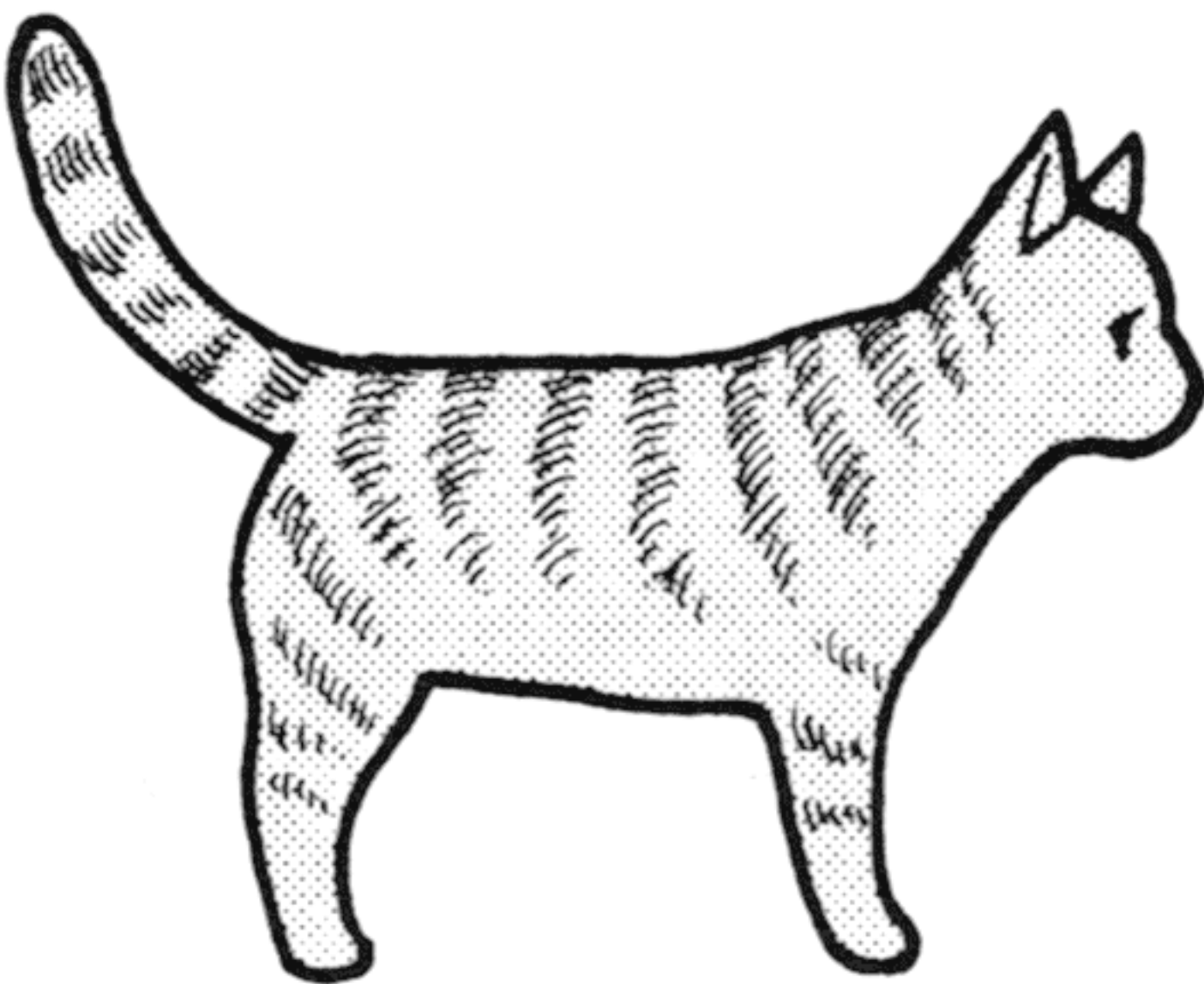
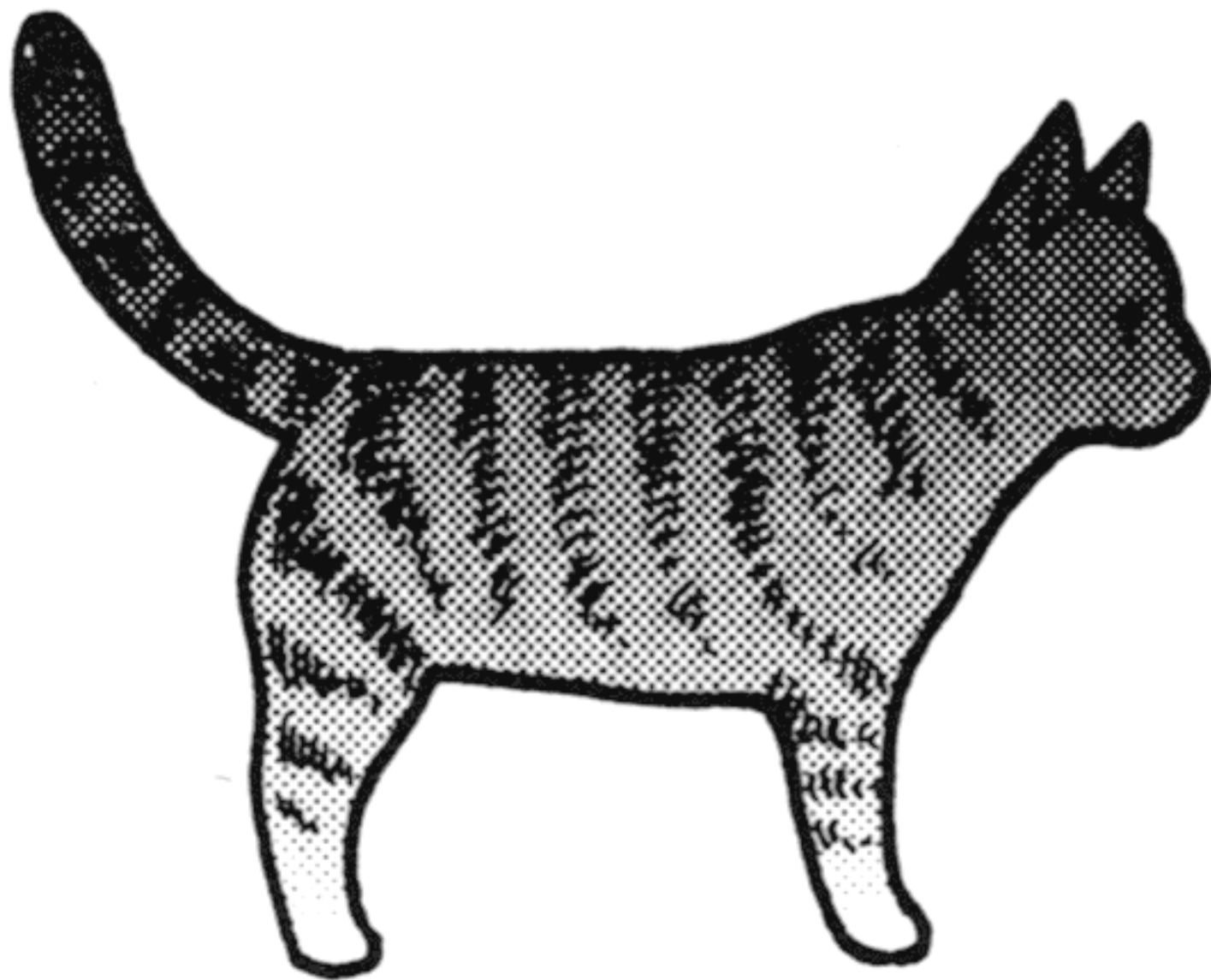
If you are unable to add color, then use hatching or tone to suggest fur color.

Face

Realistic cat rendered with hatching

Cat rendered with tone

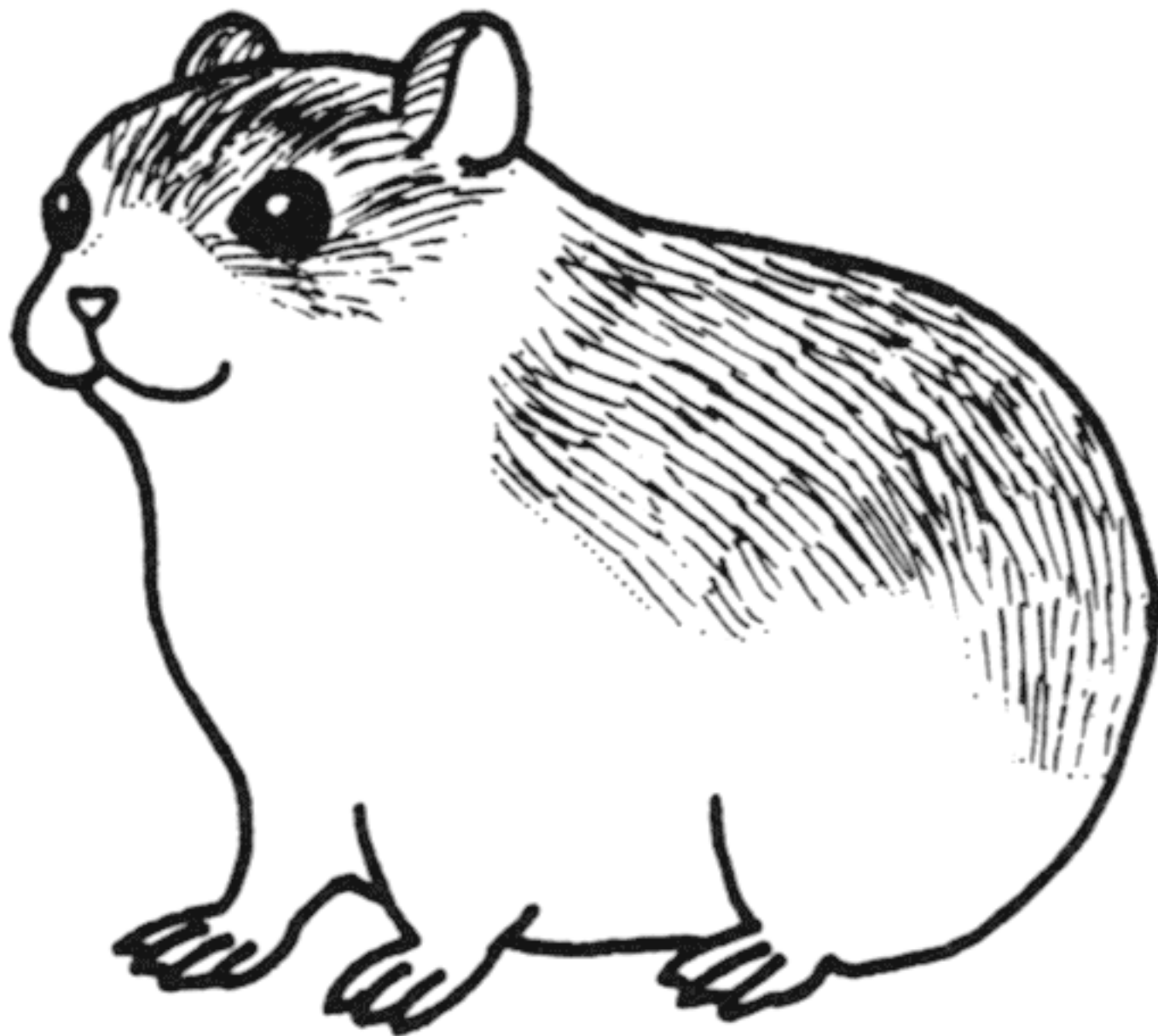
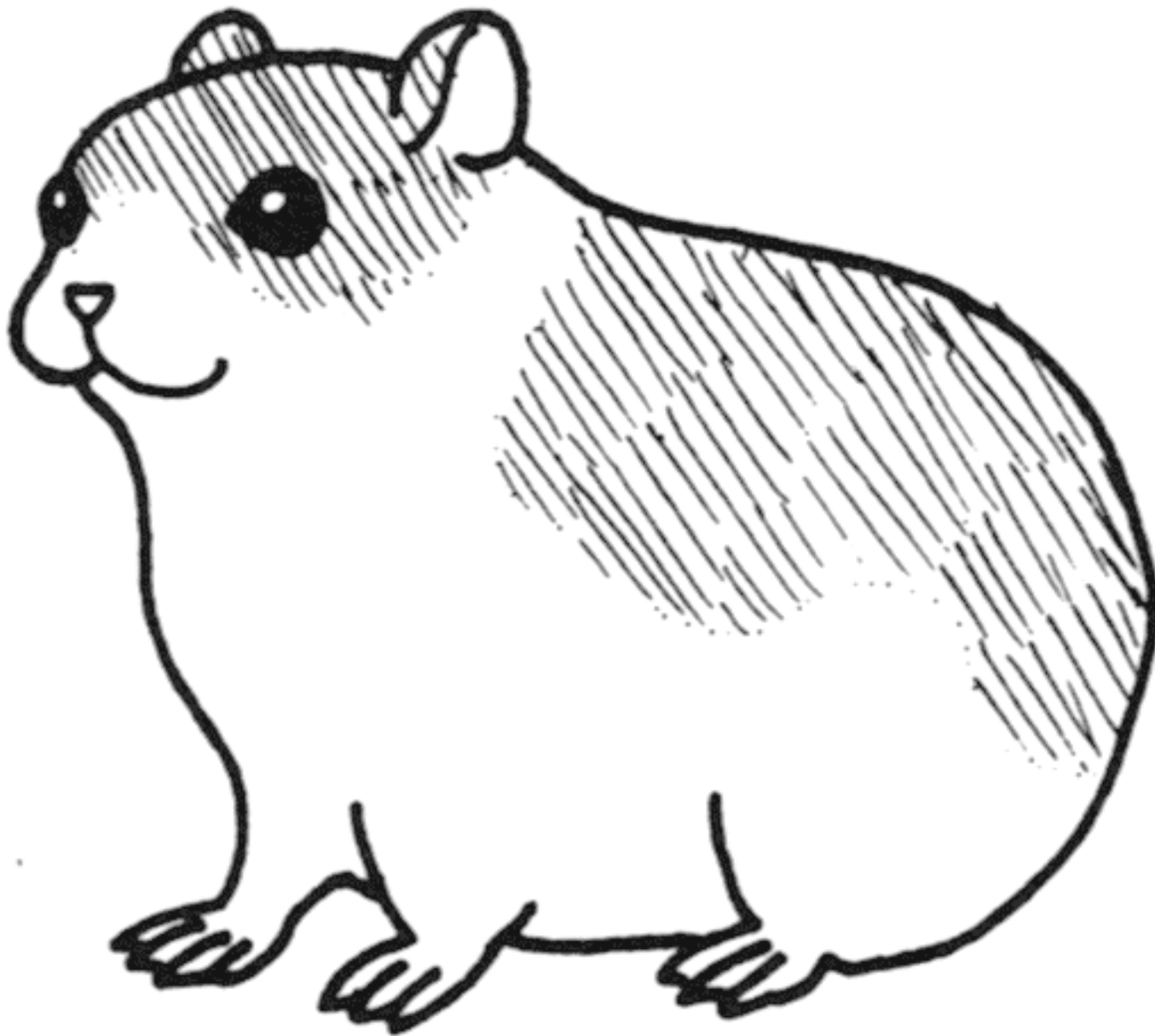
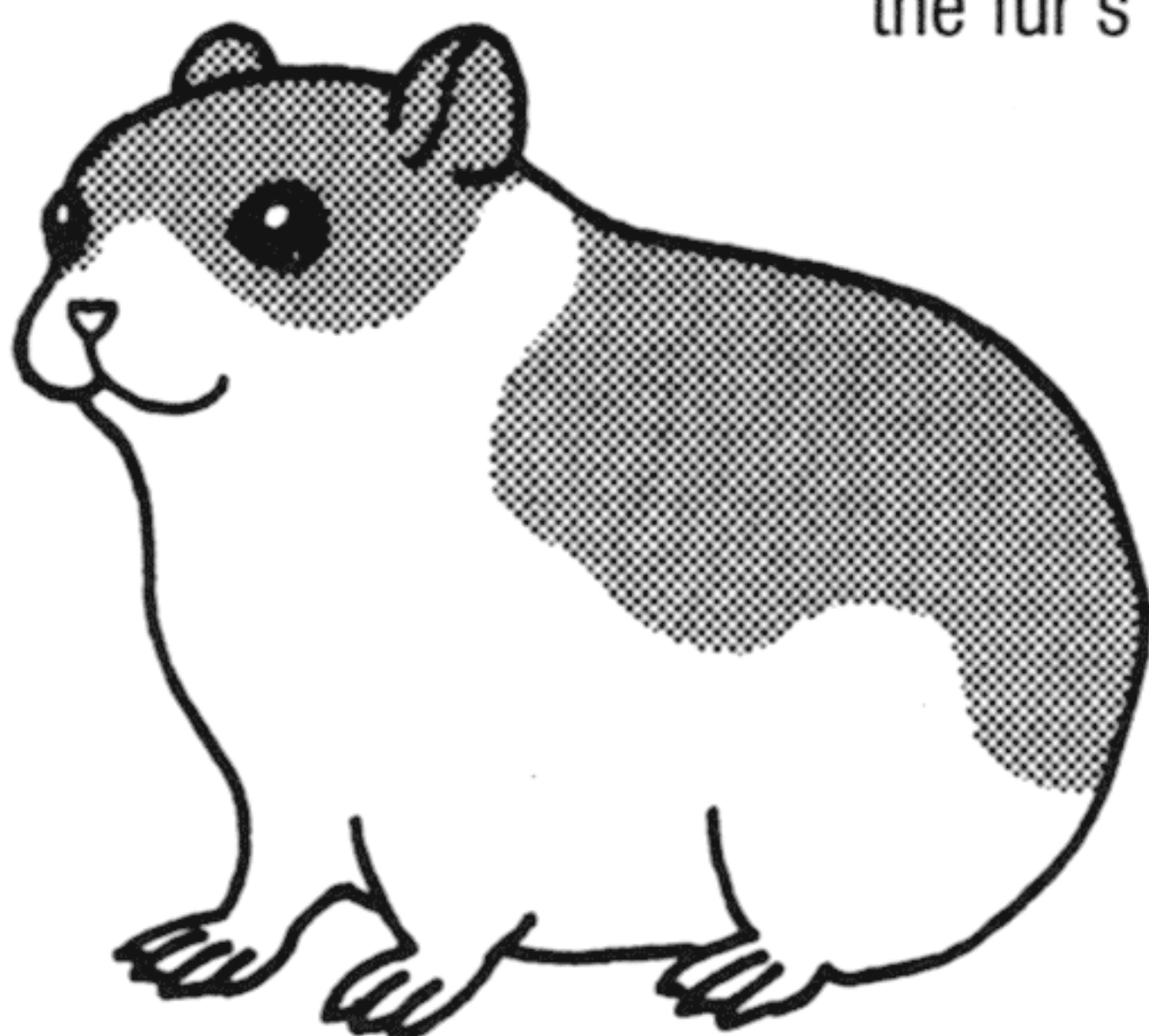
Body

Tabby Cats

Inked with a felt-tip pen

Hatching added

Tone added

Adding black patches to red mottling creates a calico cat

Striped Cats

Hatching added

Adding a light tone creates an orange striped kitty

Adding gradation tone creates a kitty with black stripes on grey

Sample Drawing: Hamster Coat (For a Bi-colored Teddy Bear Hamster)

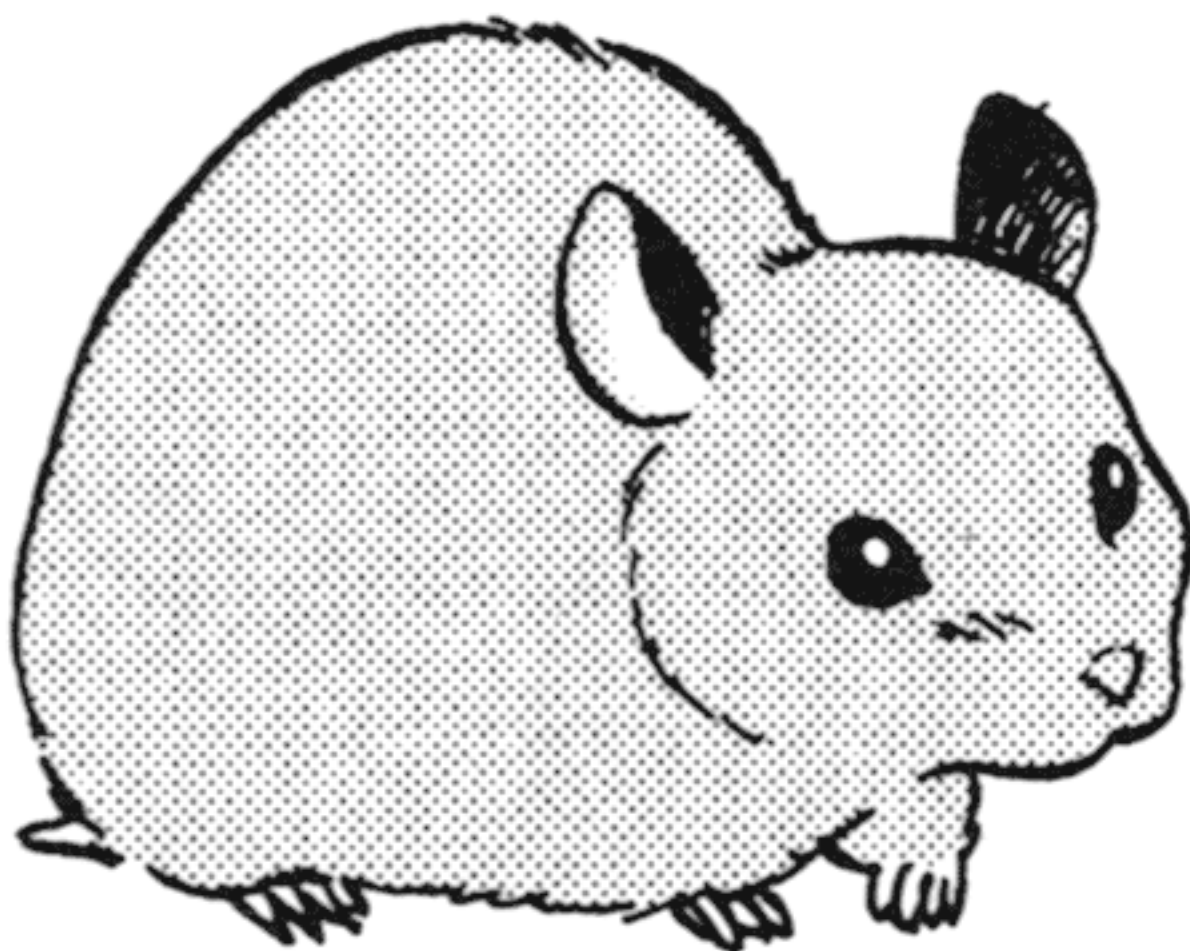
Line drawing

Hatching added to illustrate the fur's growth

Hatching added independent of the fur's growth

Tone added

Both hatching and tone added

Assorted Hamster Coats and Colors

Longhaired: Applying hand-drawn strokes creates the look of long hair.

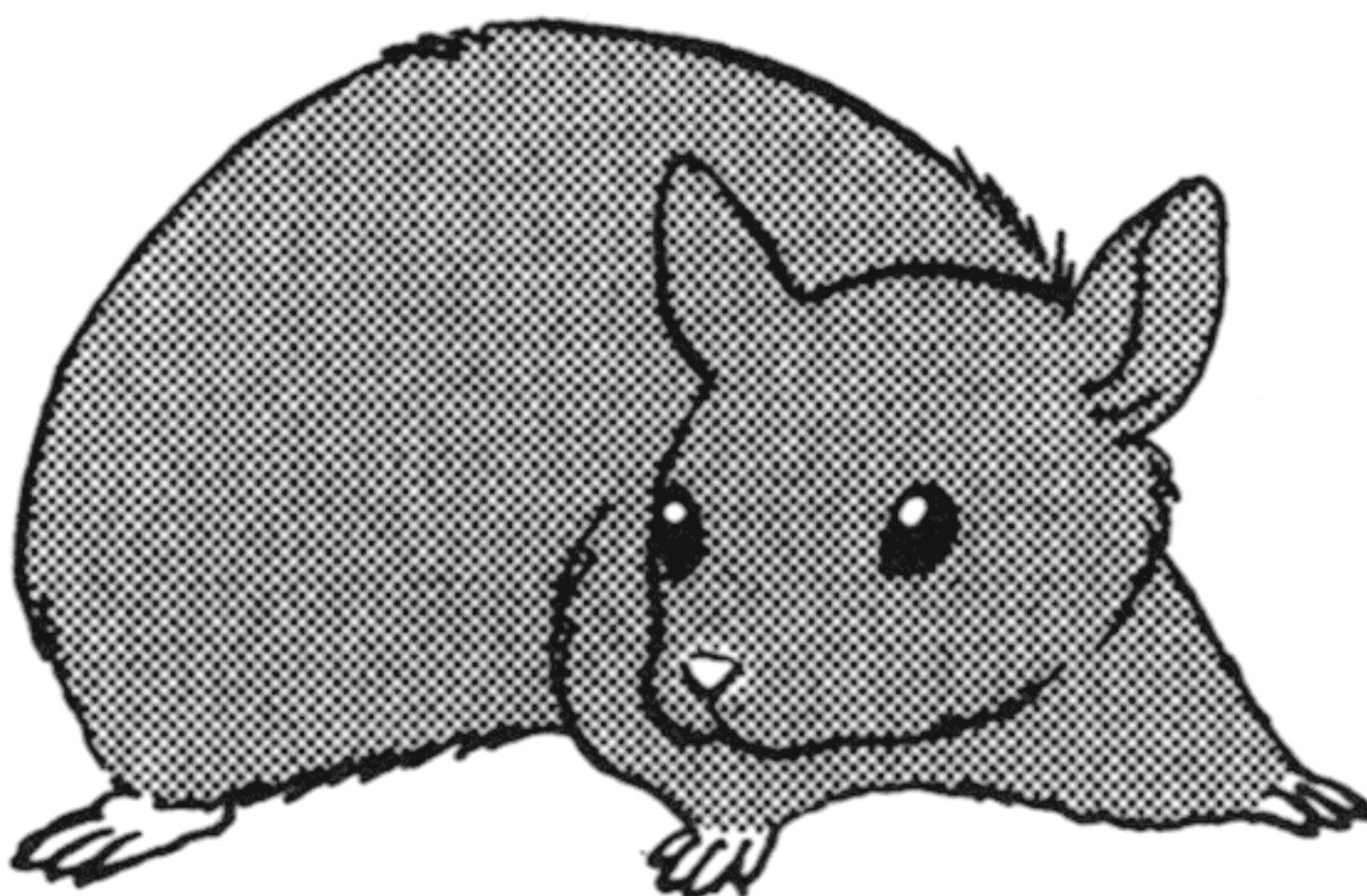
Tri-colored (calico)

Bi-colored (tortoise shell)

Grey

Bi-color (Colored face)

Panda

Ear of a cream teddy bear

Beige

Golden: Use a darker tone than you would for a cream teddy bear's ear.

Sizing Up: Animals vs. People

210

180

150

120

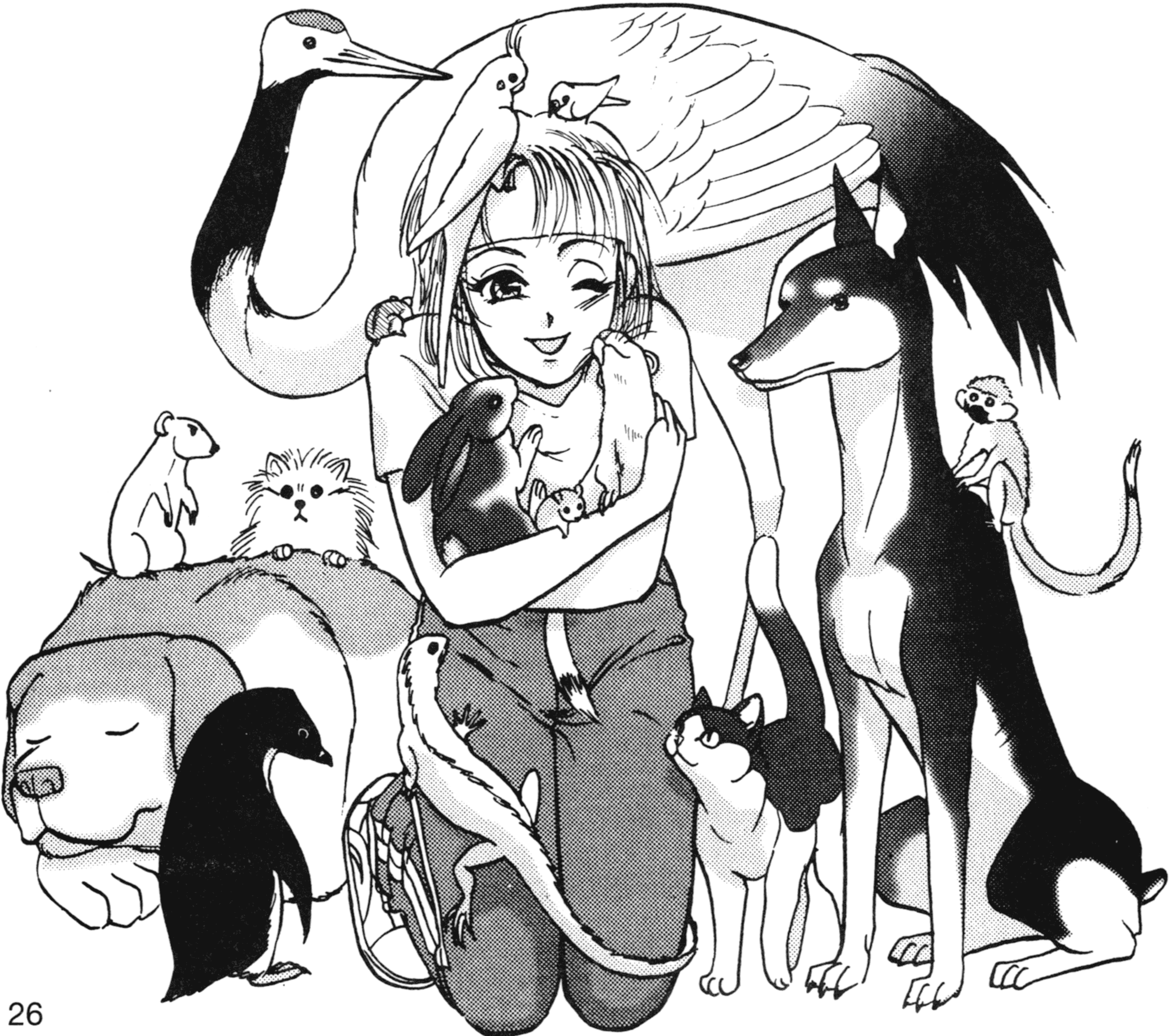
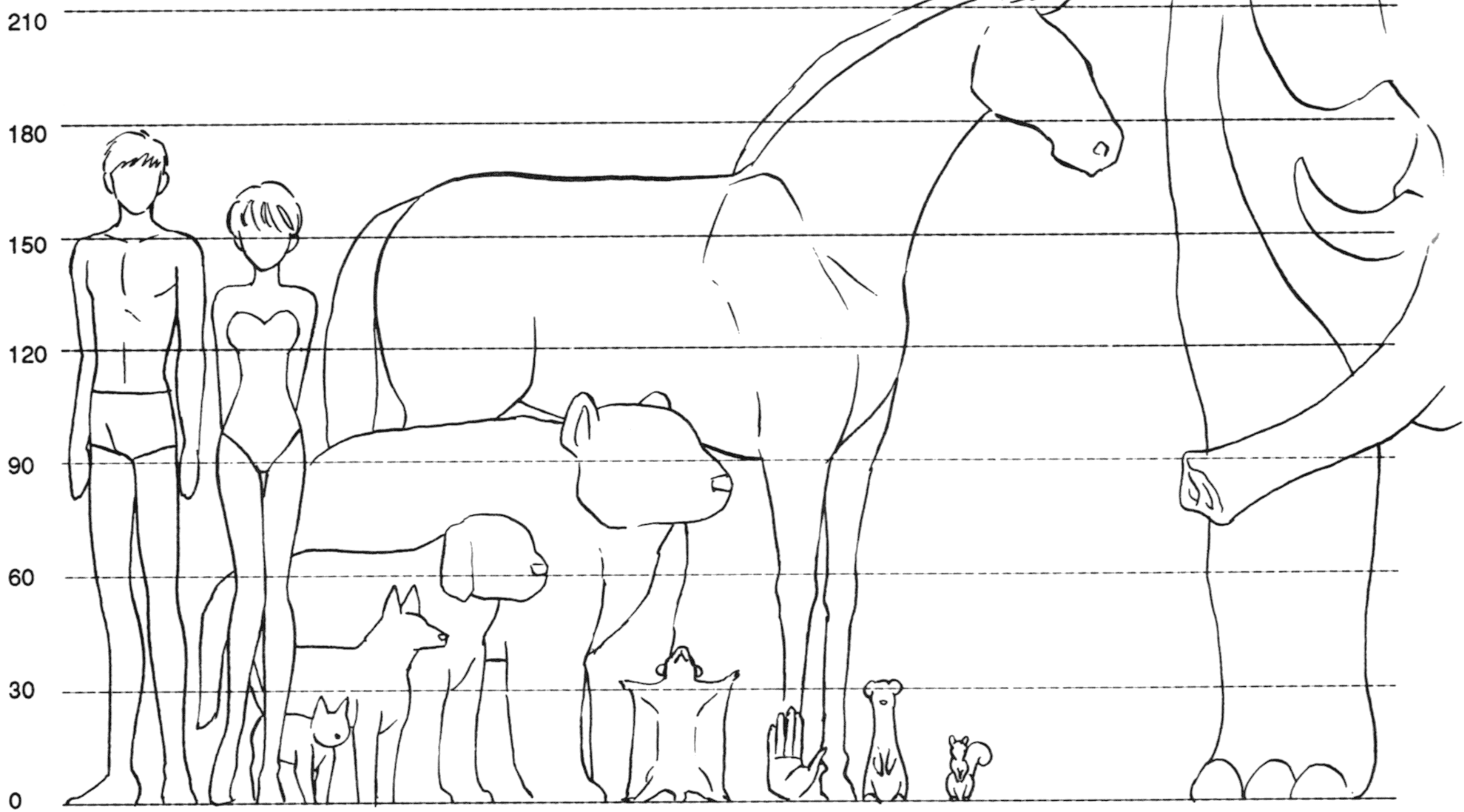
90

60

30

0

Chapter 2

Pets and Other Familiar Animals

Dogs

When drawing, give consideration to the following three points:
1) Are the ears pointed or floppy?
2) Is the muzzle long or short?
3) What size is the dog: large, medium, or small?

Pointed-eared Dogs (Long Muzzle): Shiba Inu, German Shepard (Alsatian), Pomeranian, Papillion, Etc.

The ears should be spaced slightly further apart than the eyes.

Dogs like Akitas and Collies have floppy ears during their puppy stage.

Eg.: Akita

Forelegs

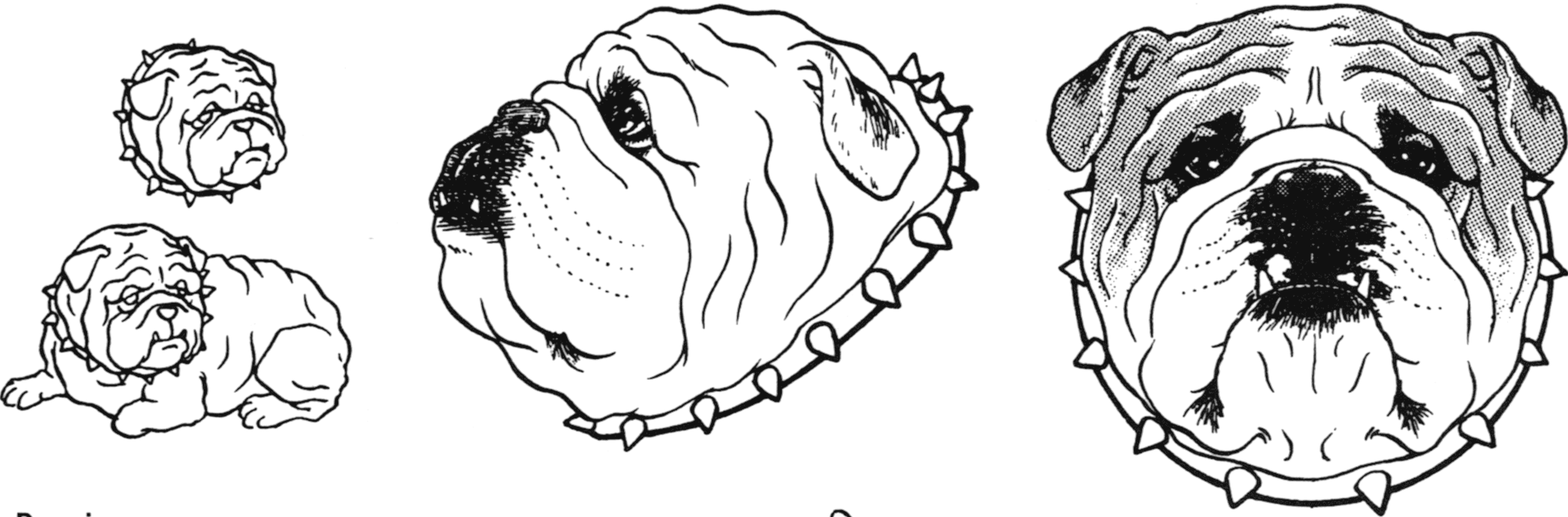
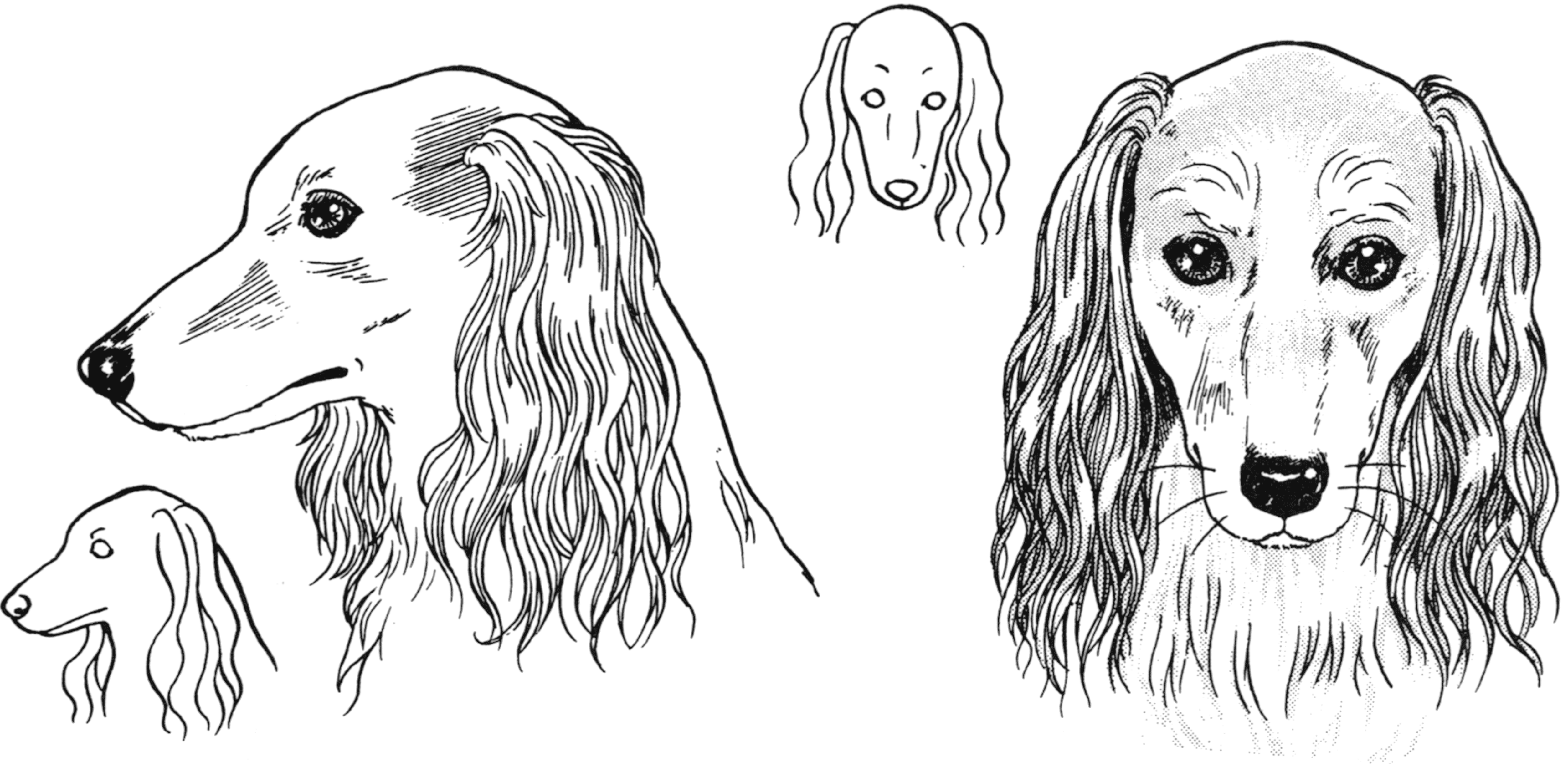
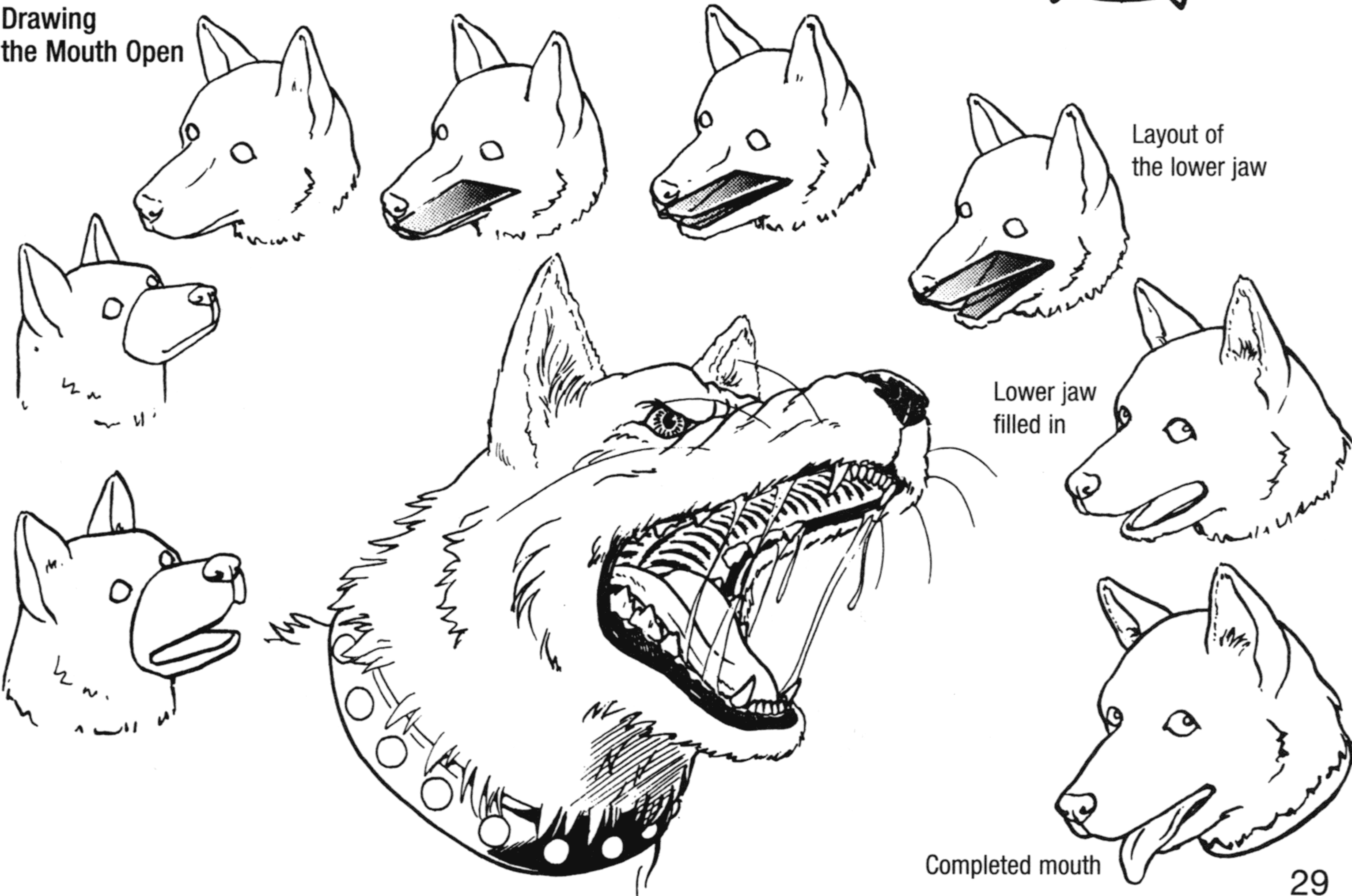
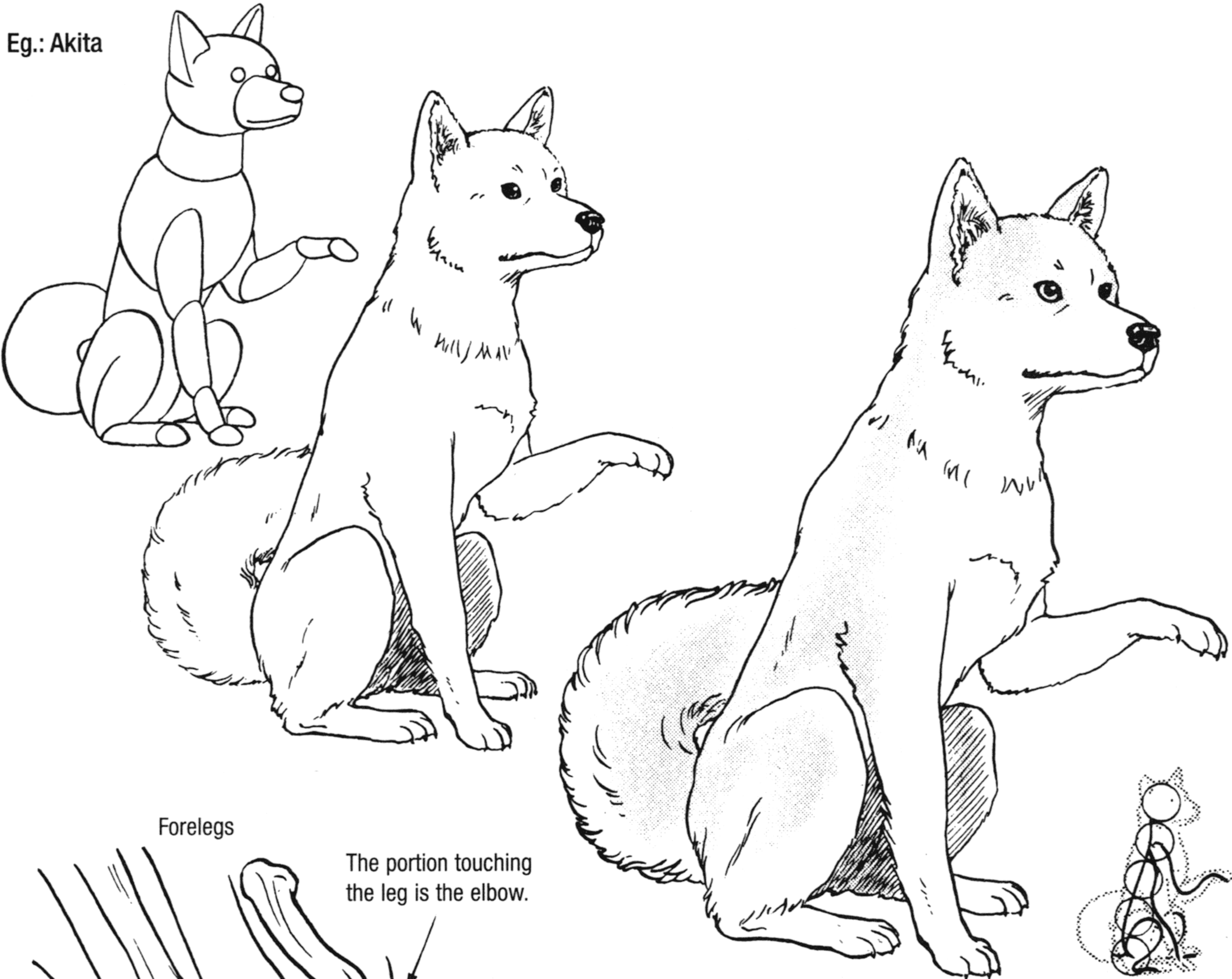
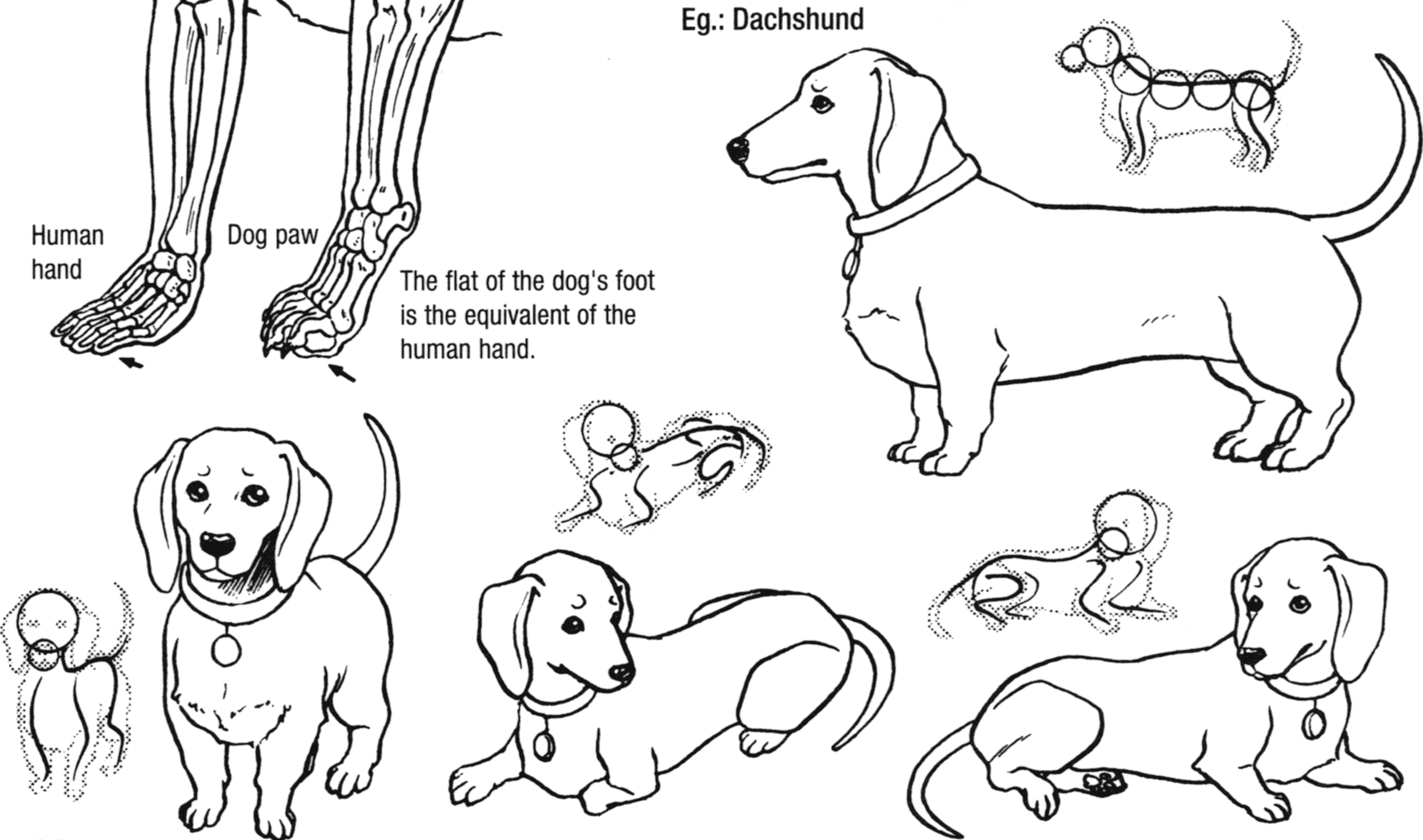
The portion touching the leg is the elbow.

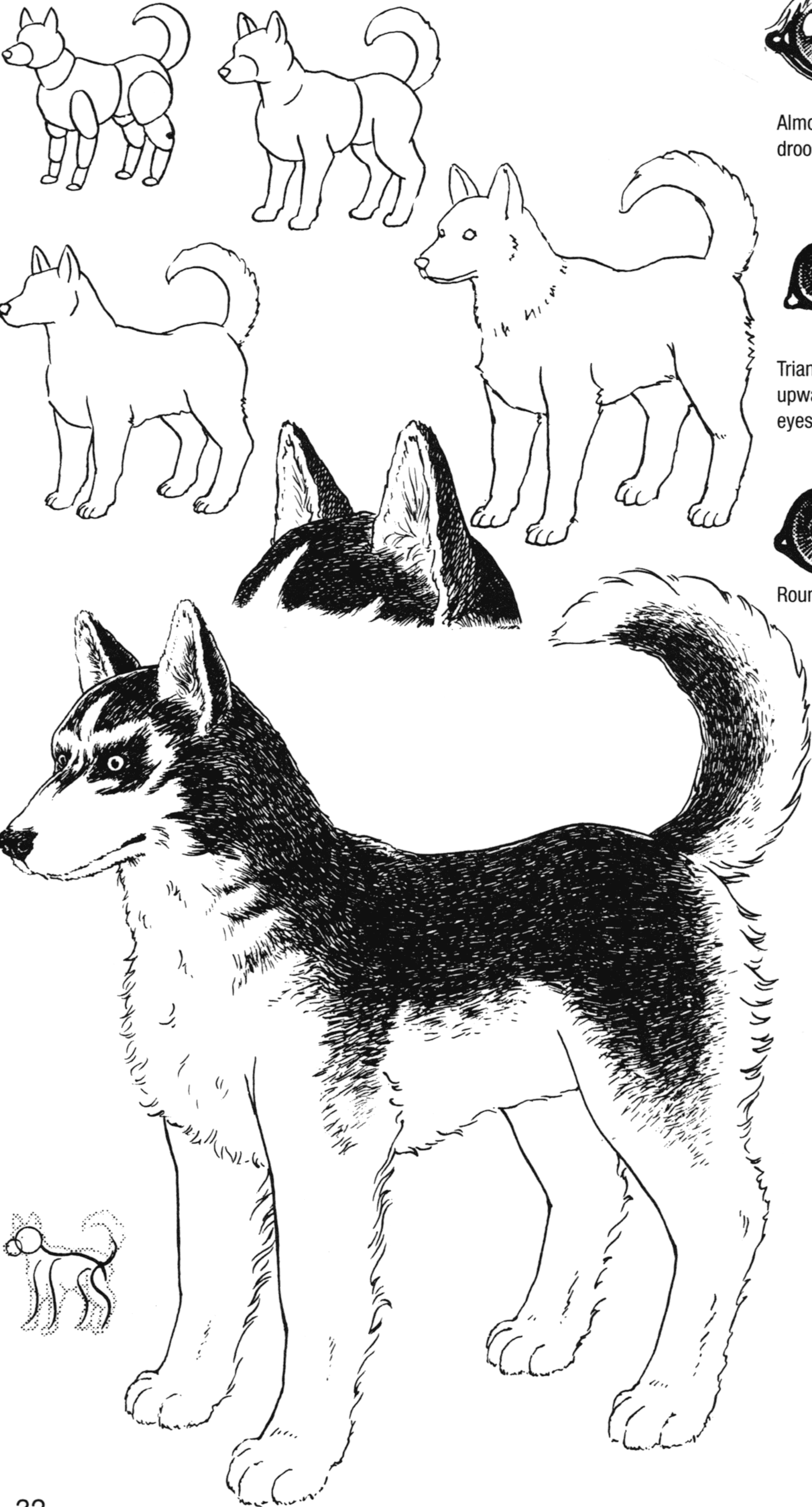
Human hand

Dog paw

The flat of the dog's foot is the equivalent of the human hand.

Eg.: Dachshund

Drawing Dogs with Thick Fur

Eg.: Siberian Husky

Dogs' Eyes Come in Three Types

Almond-shaped, droopy eyes

Great Pyrenees, etc.

Triangular, upward slanting eyes

Shiba Inu, etc.

Round, popeyed

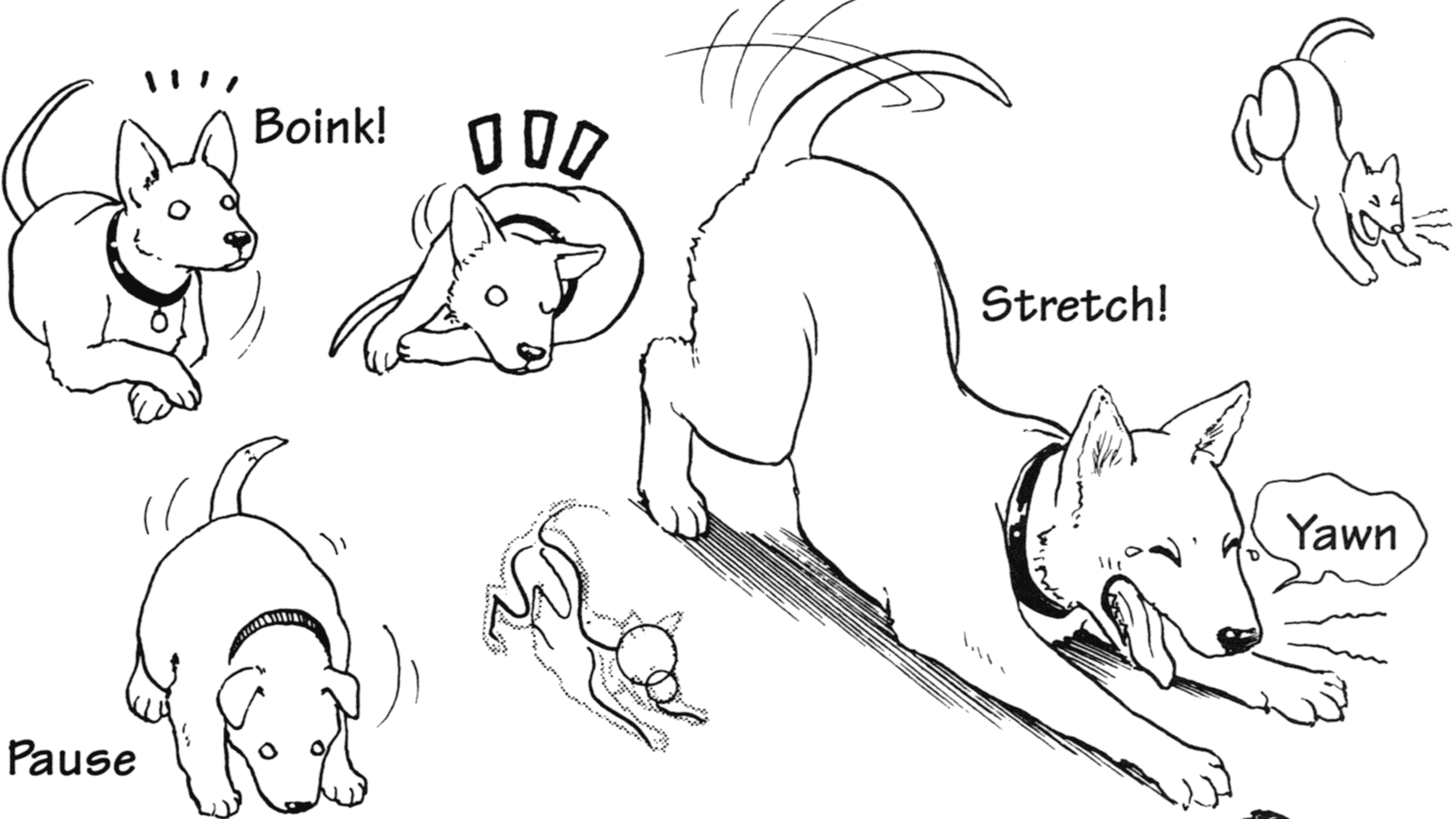
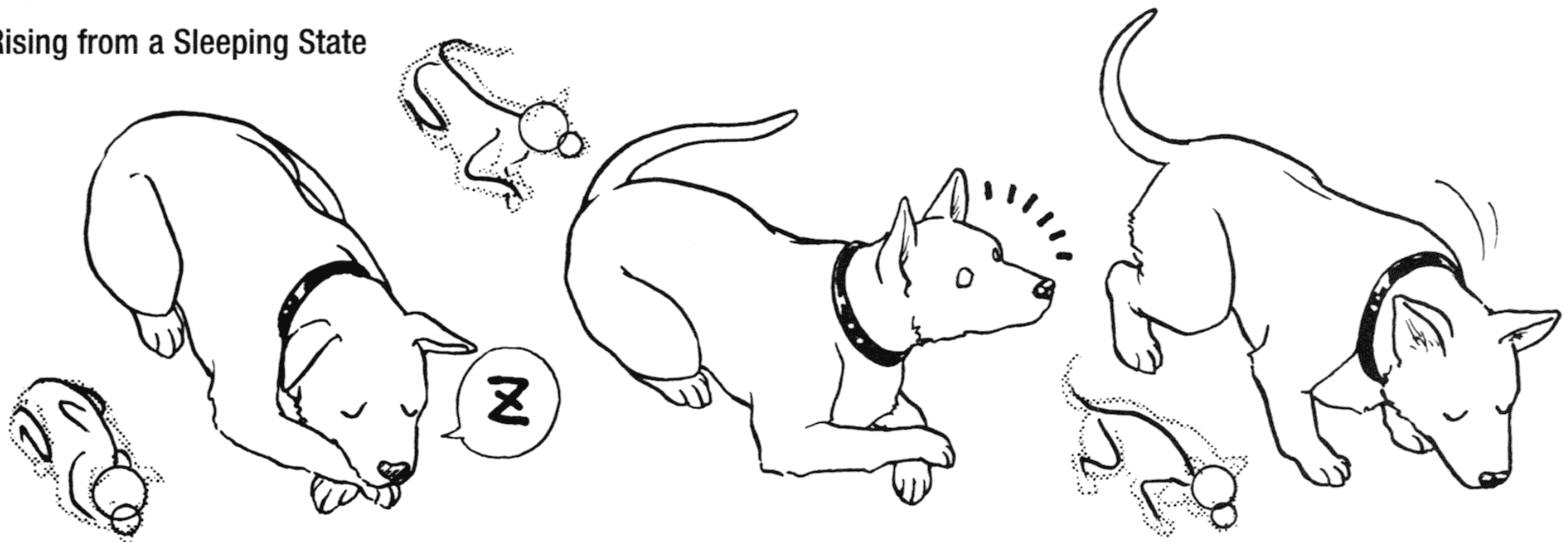
Pomeranian, etc.

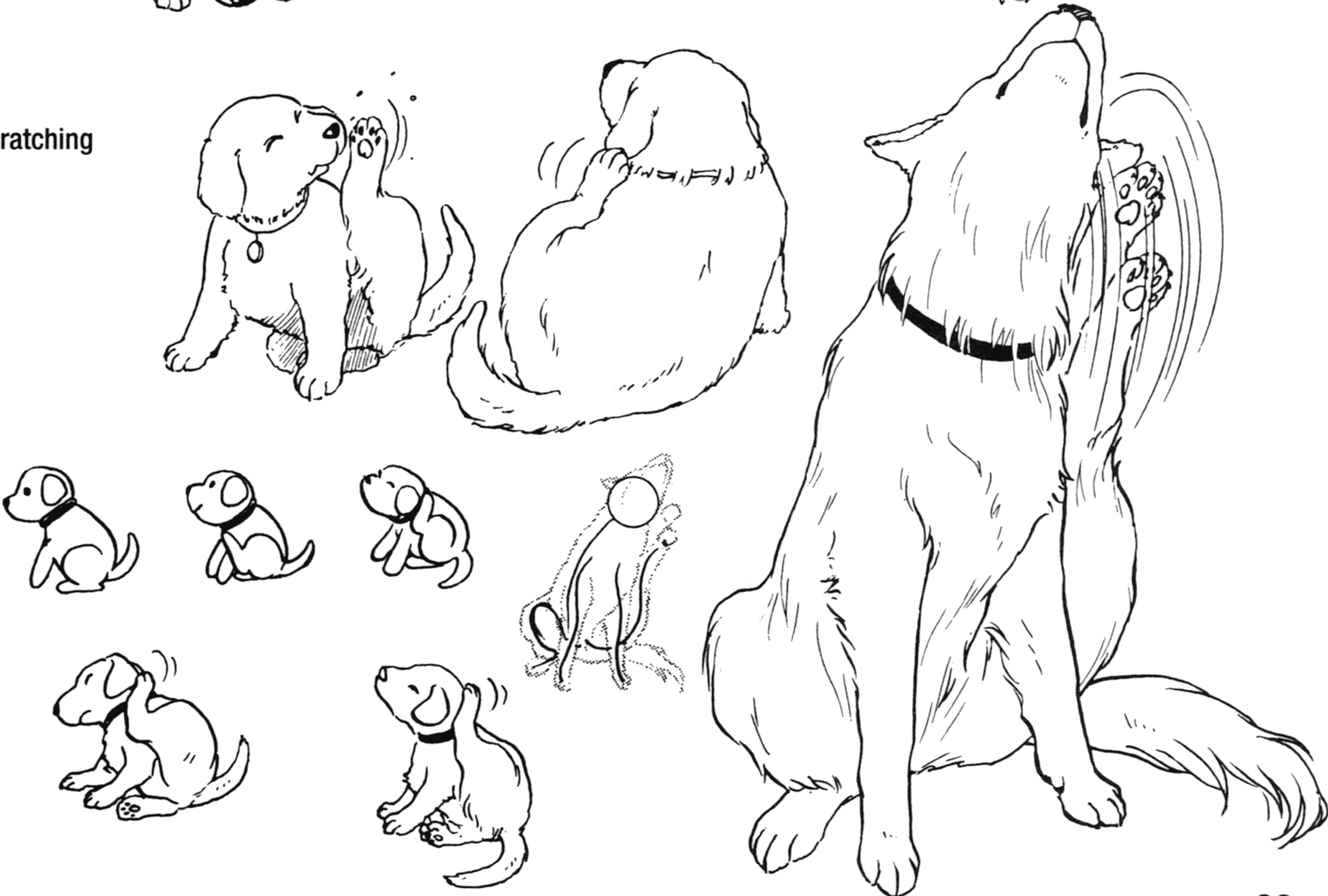
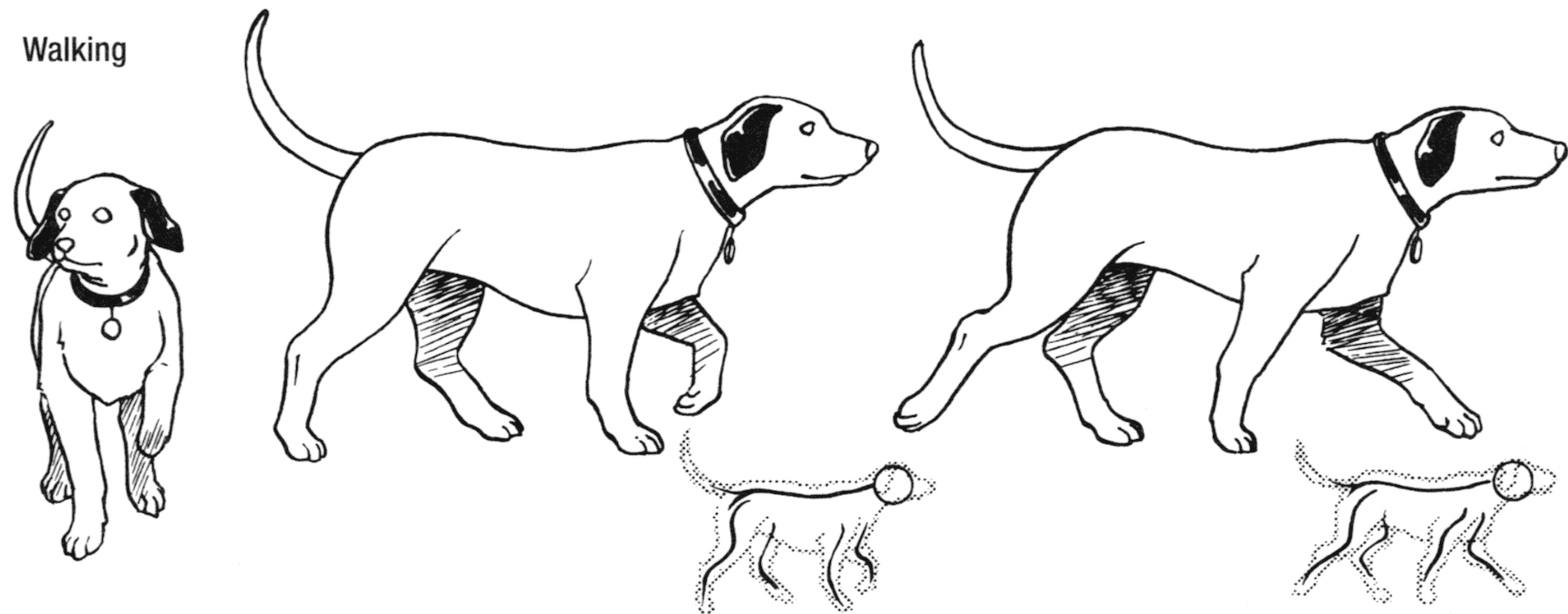
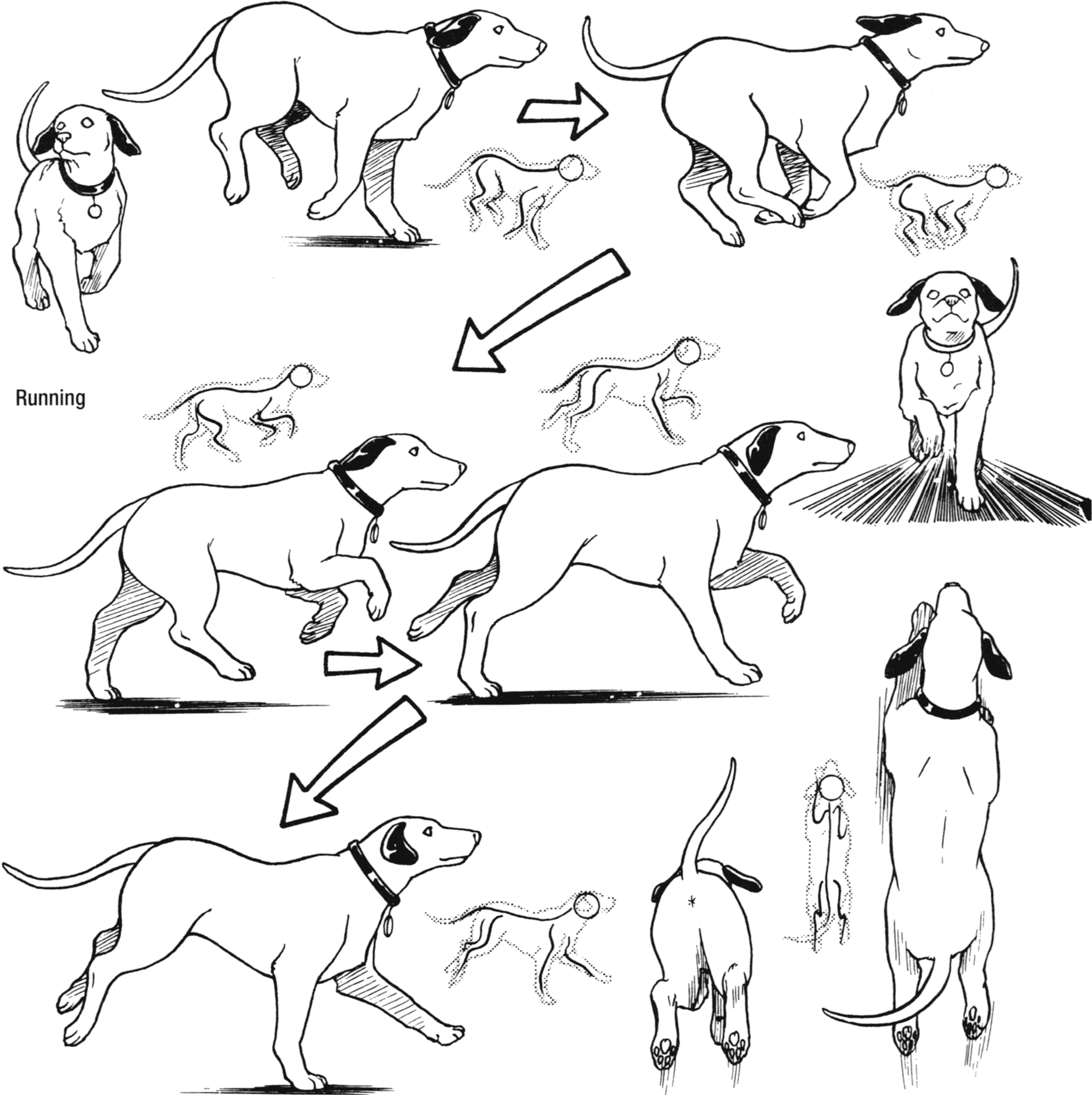
Rising from a Sleeping State

Z

Boink!

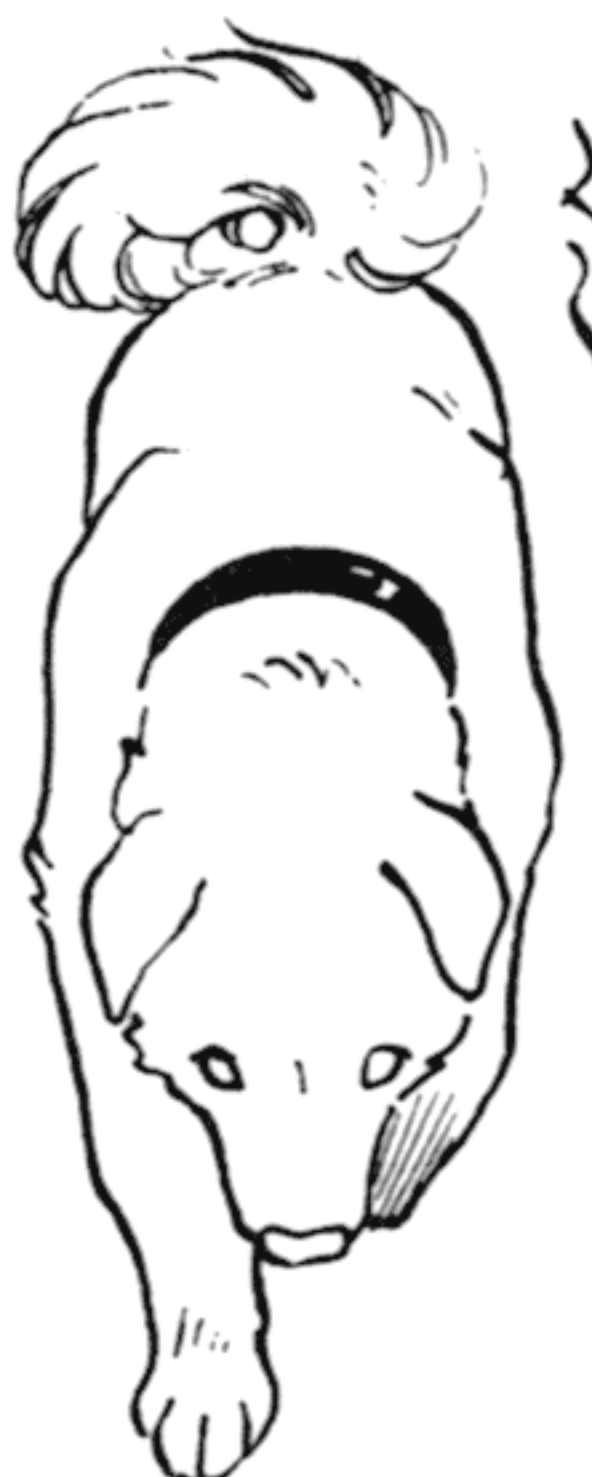
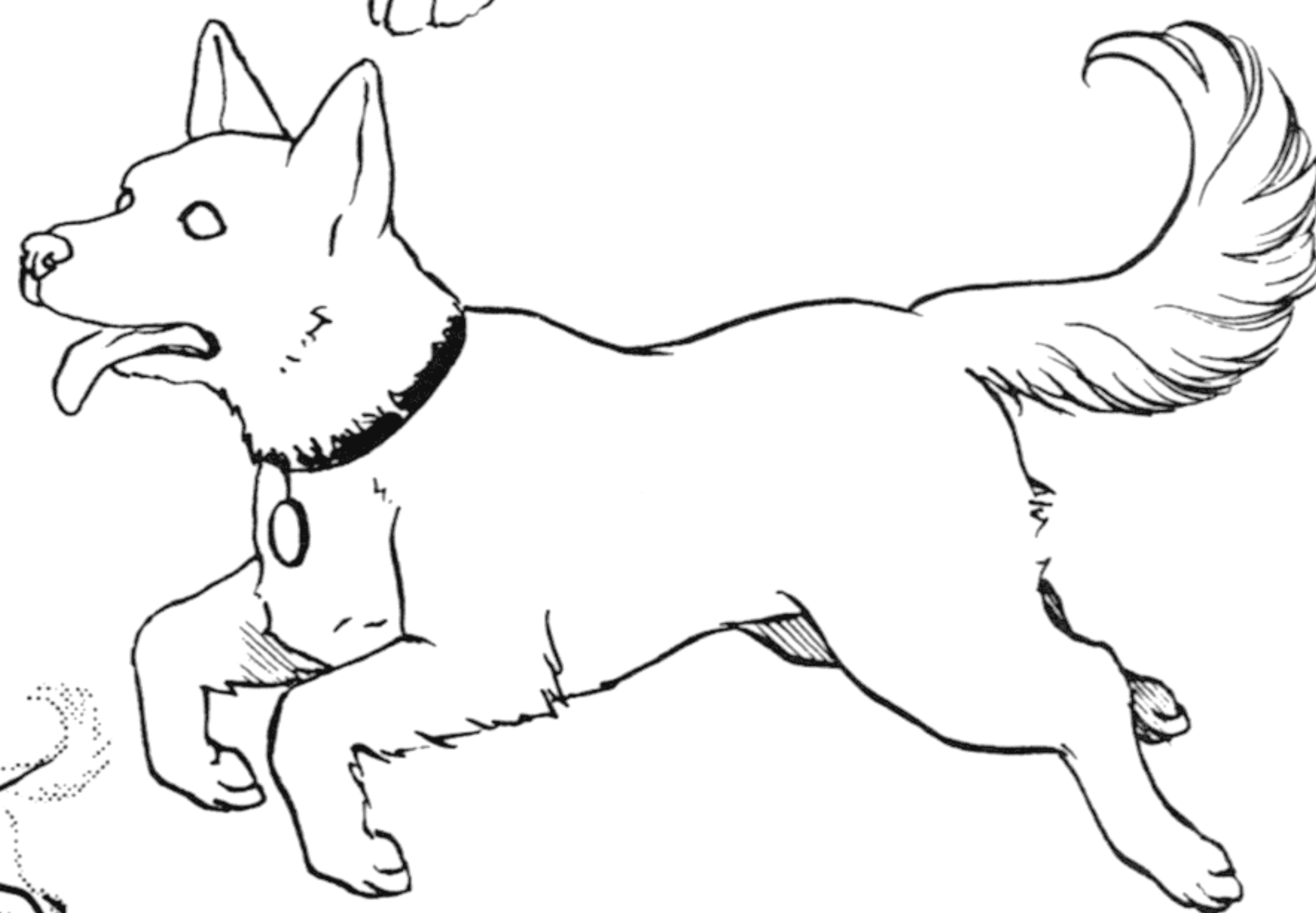
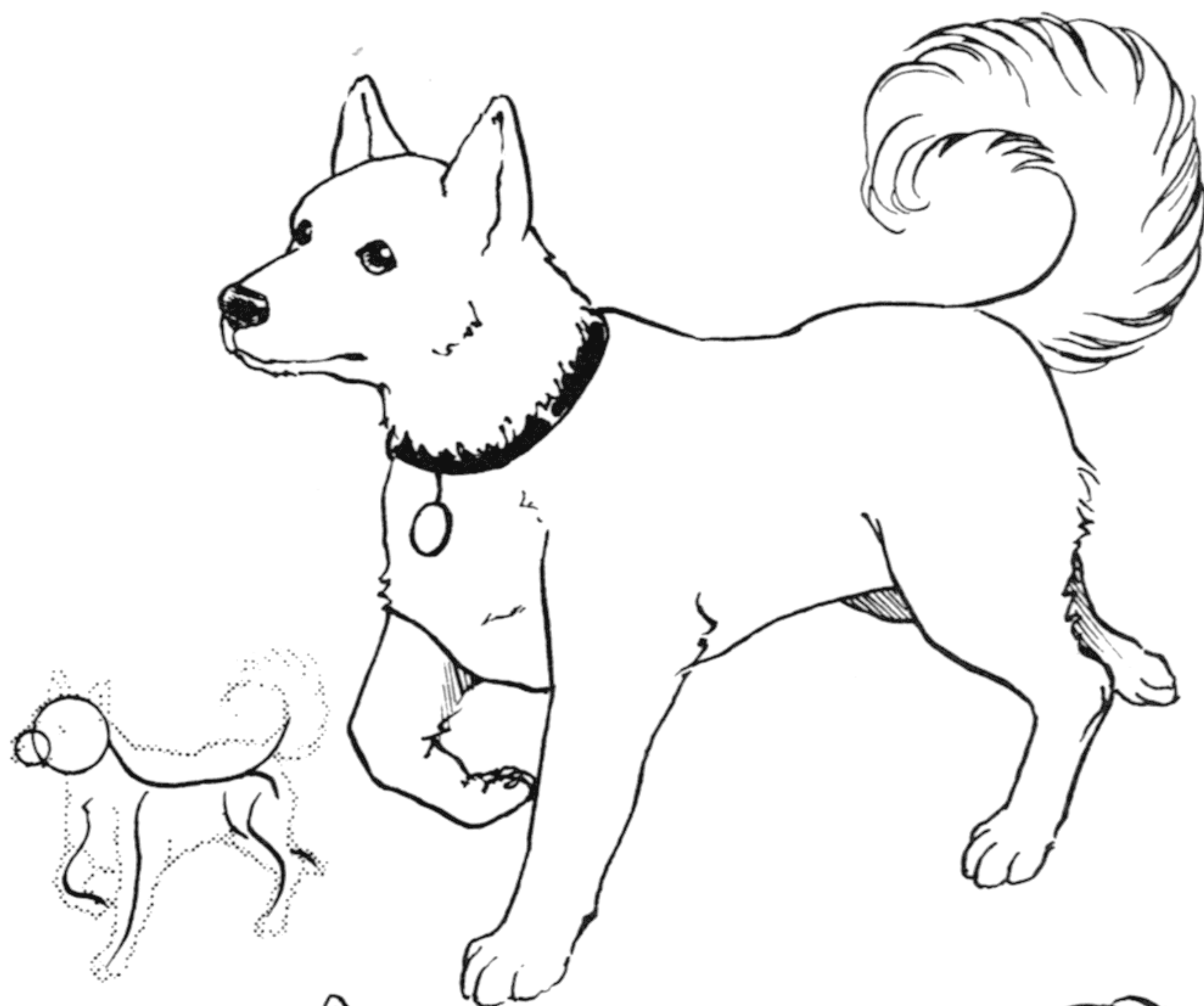
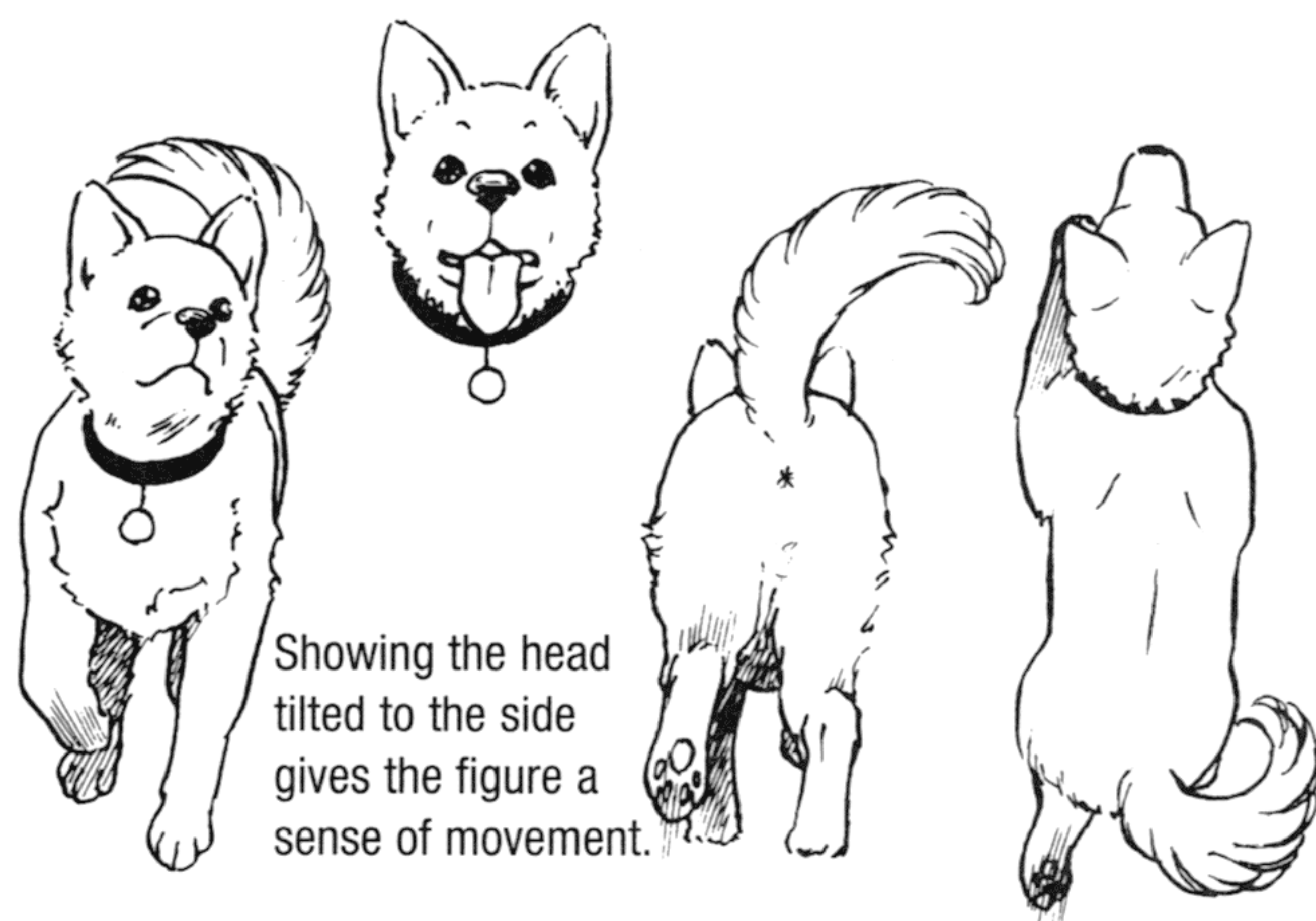
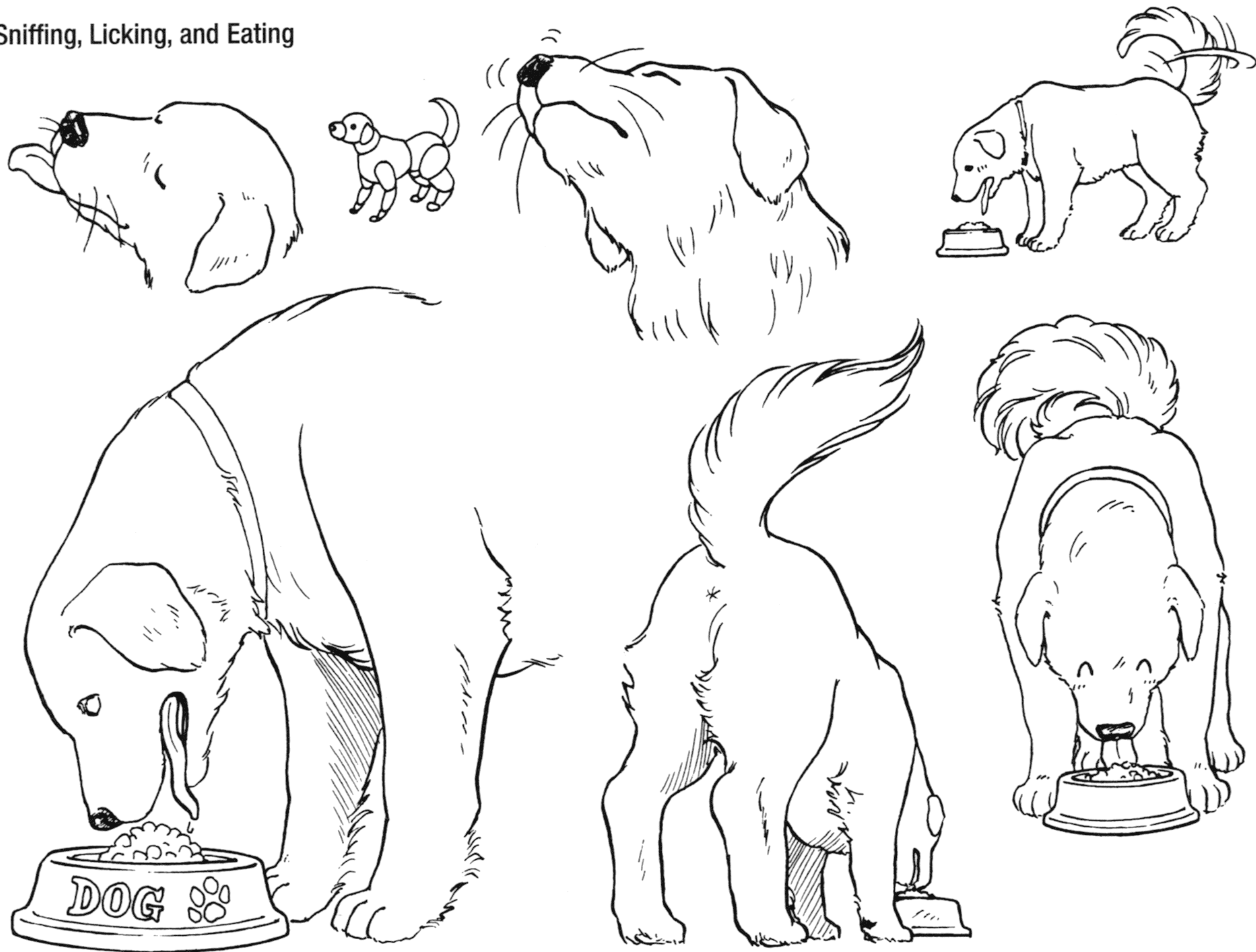
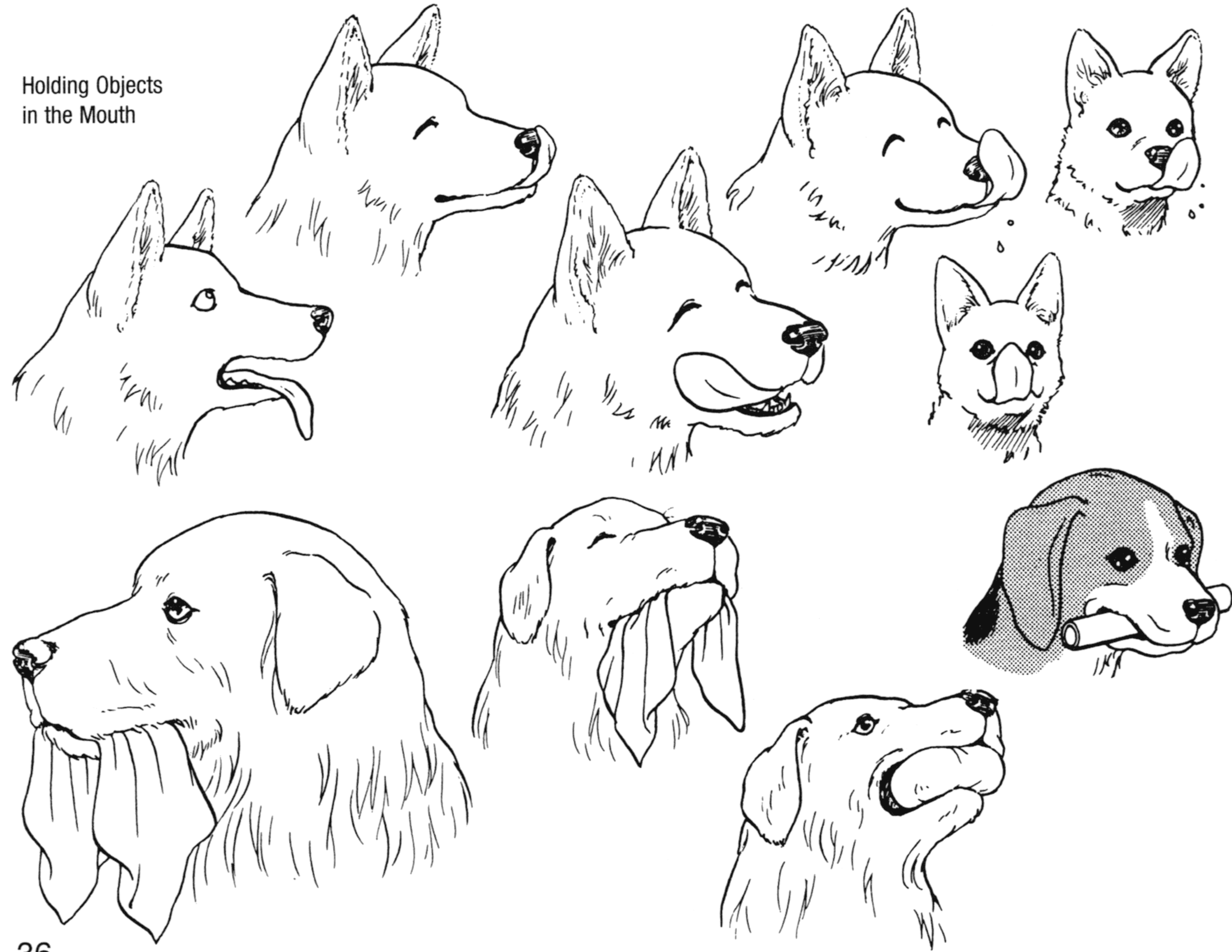
Stretch!

Yawn

Pause

Scratching

Walking

Running

Panting

Showing the head tilted to the side gives the figure a sense of movement.

Comparing Positions from the Same Angle

Trudging Along

DOG

Holding Objects
in the Mouth

Portraying Puppies Puppies are more compact than adult dogs and have larger heads, and on top of that, they often have thick, short legs. Your puppies should have an overall roly-poly look.

Adult Dog

Puppy

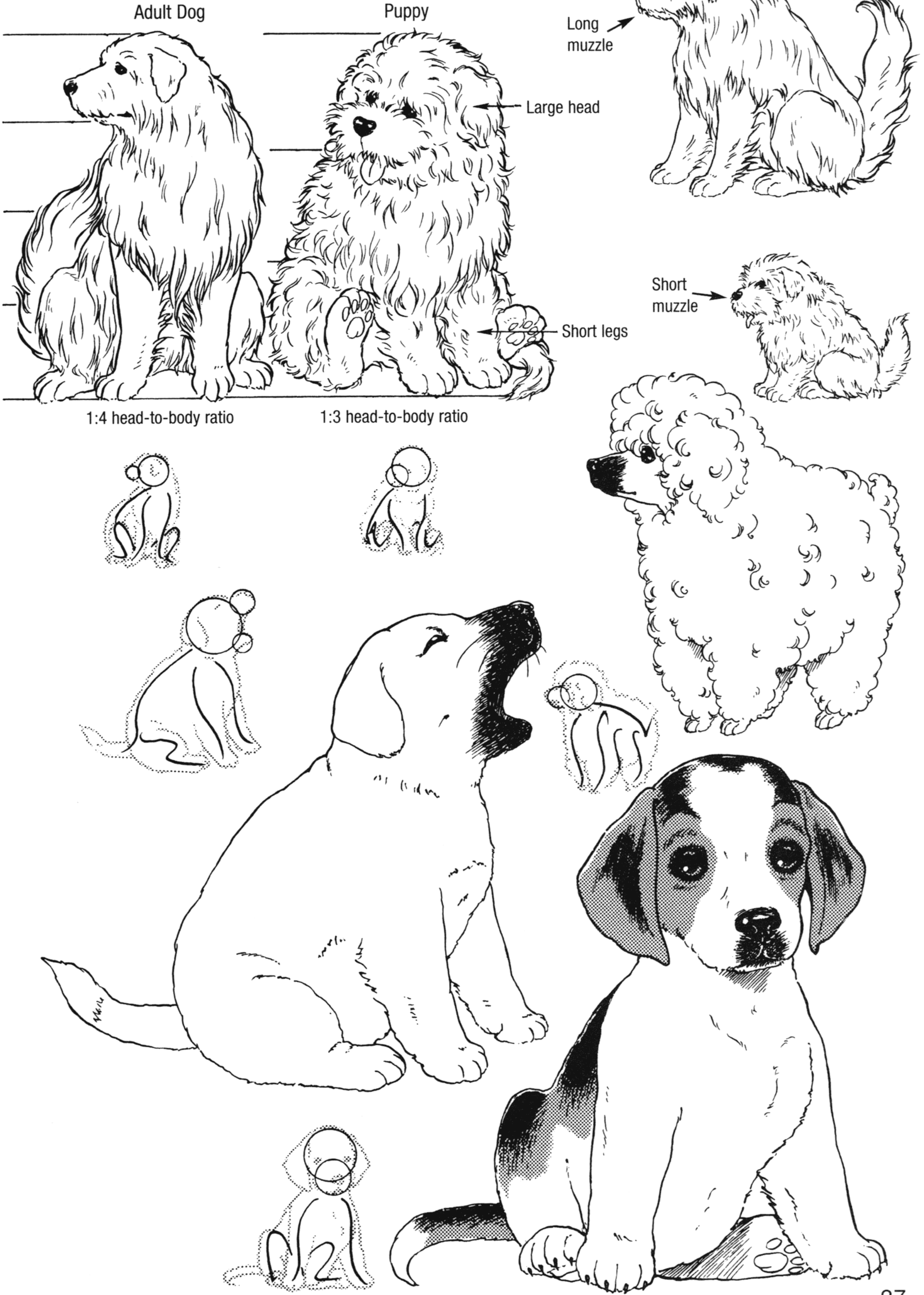
Long muzzle

Large head

Short muzzle

Short legs

1:4 head-to-body ratio

1:3 head-to-body ratio

Cats

Cat furs come in varying lengths, from that of the common Japanese housecat to fluffy puffballs, like the Persian or Himalayan.

Common Japanese Housecat

1 2 3

1

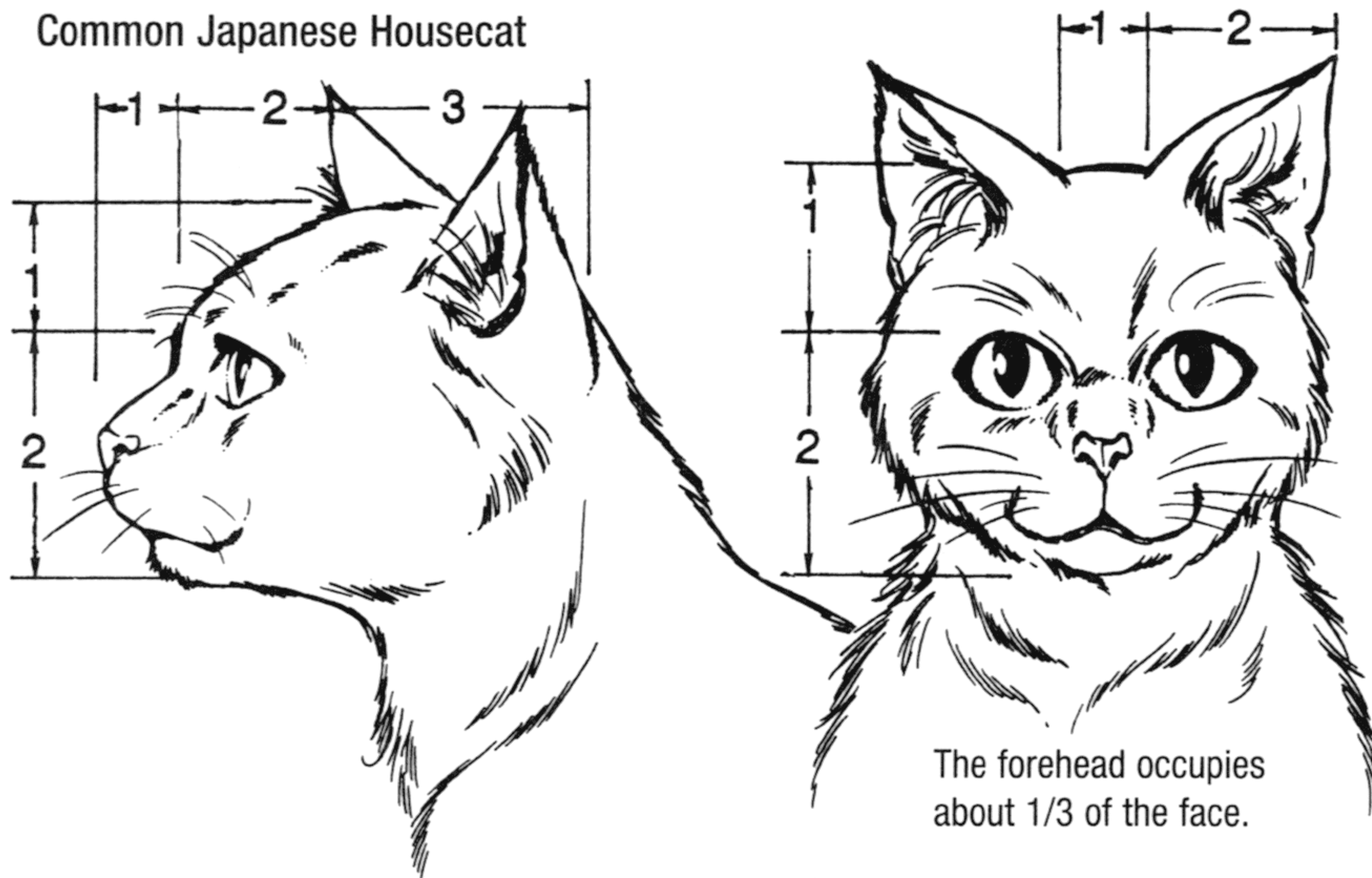
2

1 2

1

2

The ears are close together (about half the distance of an ear's actual width).

The forehead occupies about 1/3 of the face.

The nose protrudes about 1/5 the distance of the head's total depth.

Long-haired Cats (Persian, Himalayan)

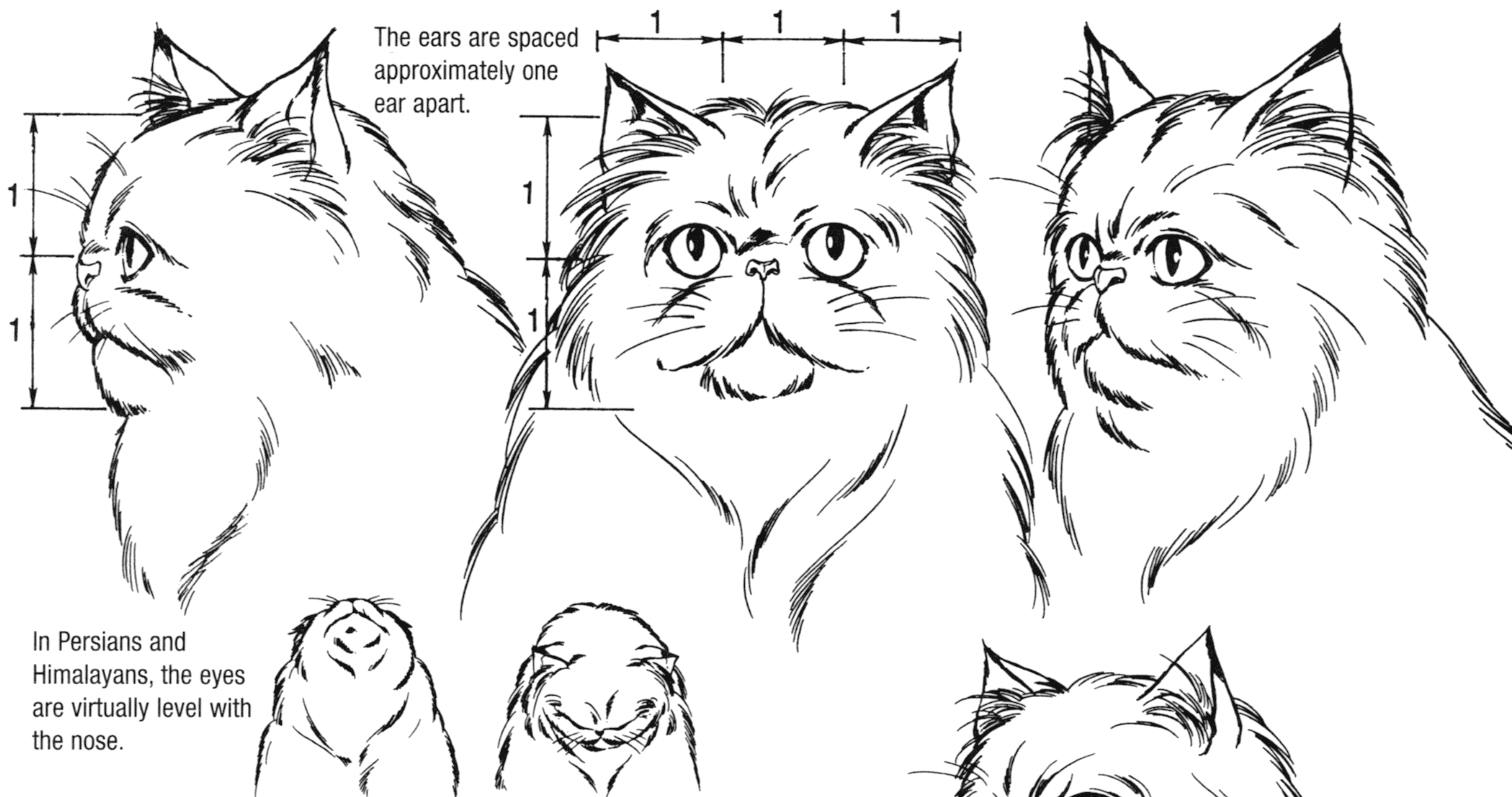
The ears are spaced approximately one ear apart.

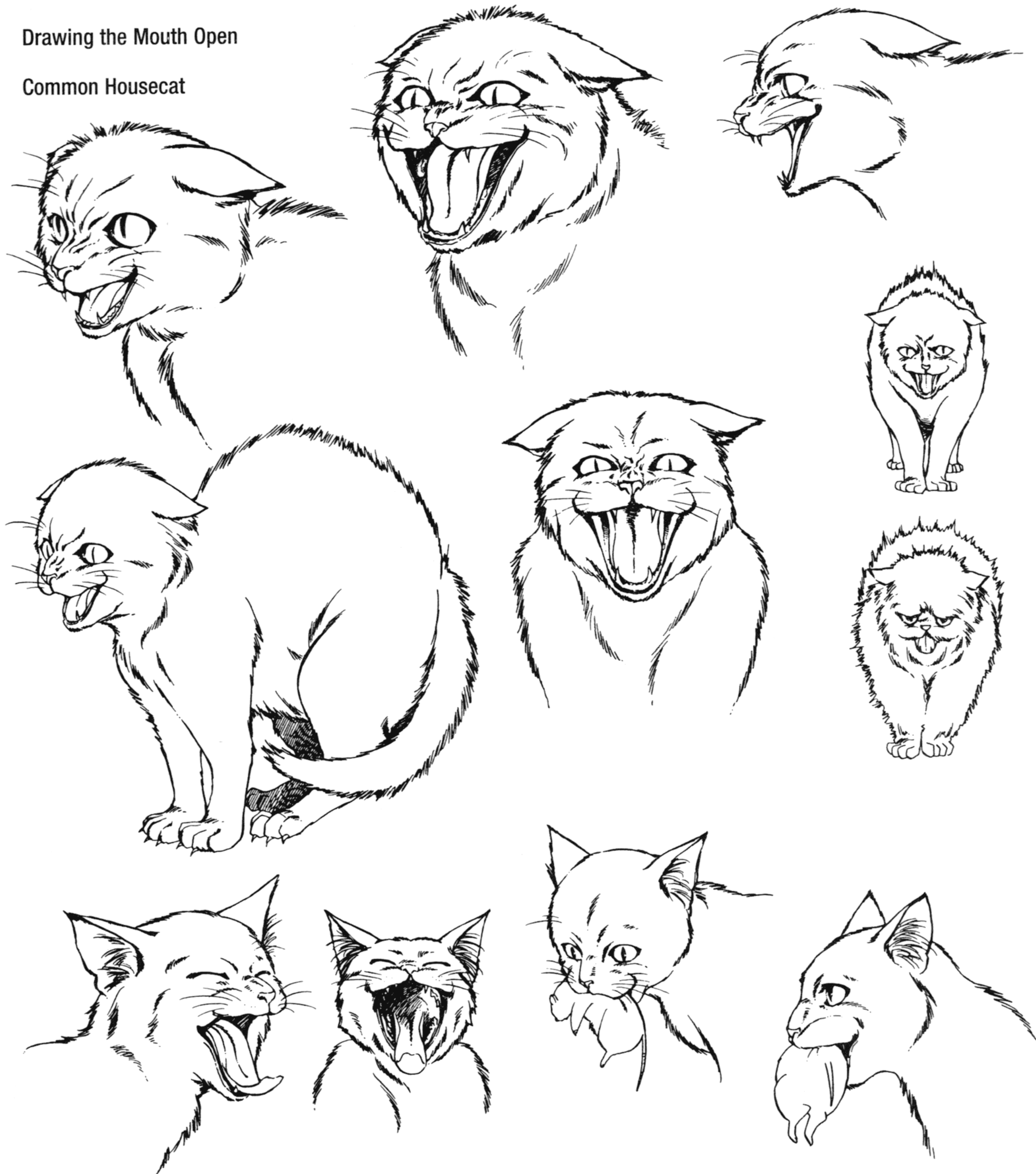
1 1 1

1

1

1

1

In Persians and Himalayans, the eyes are virtually level with the nose.

The bridge of the nose becomes visible on Persians and Himalayans when mixed with other breeds.

Assorted Faces

Siamese (divided chin)

Russian Blue (pentagonal head)

Japanese housecat (round head)

Scottish Fold (downward folded ears)

Drawing the Mouth Open

Common Housecat

Long-haired Cat

Common Housecat

1

4

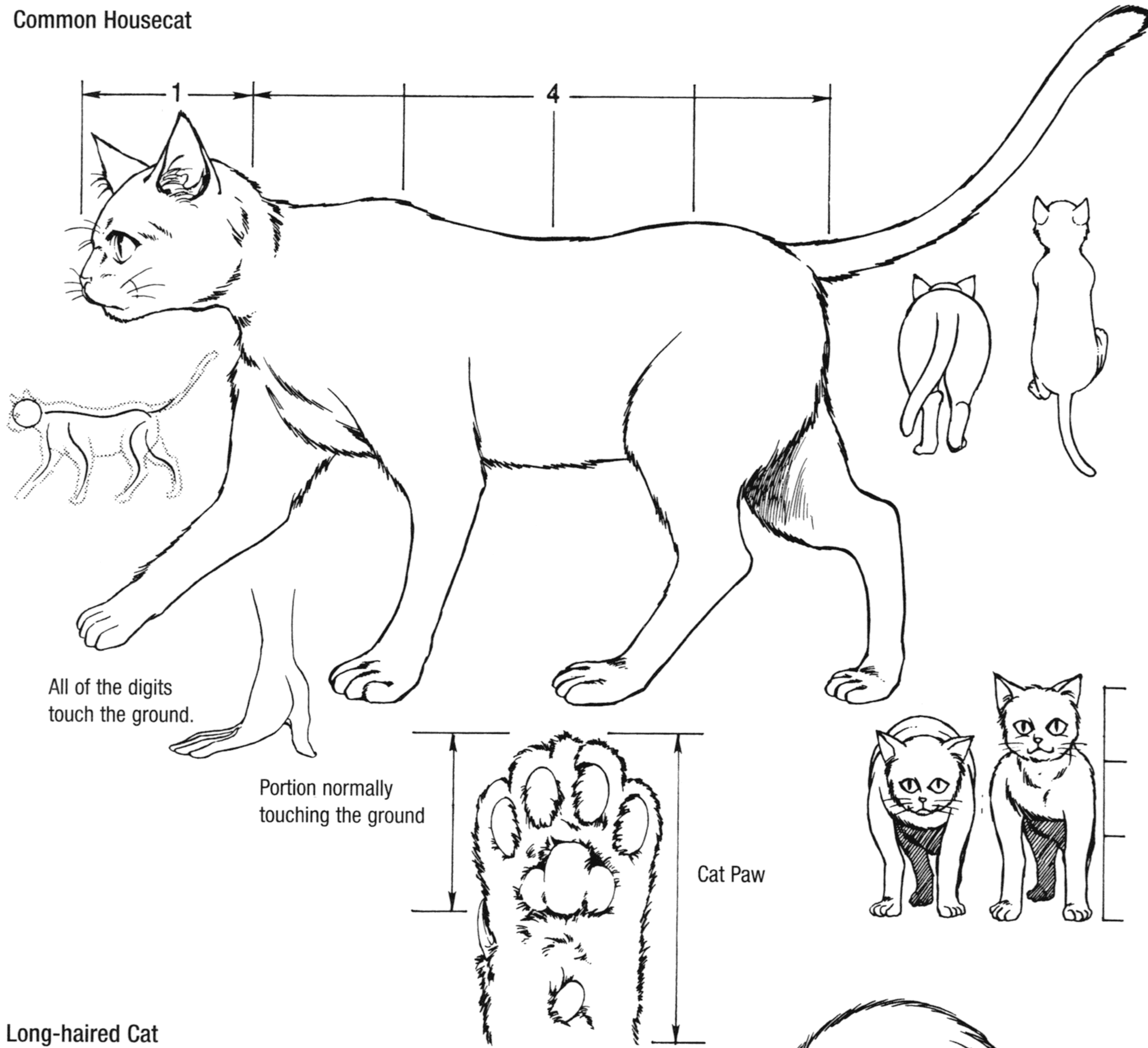
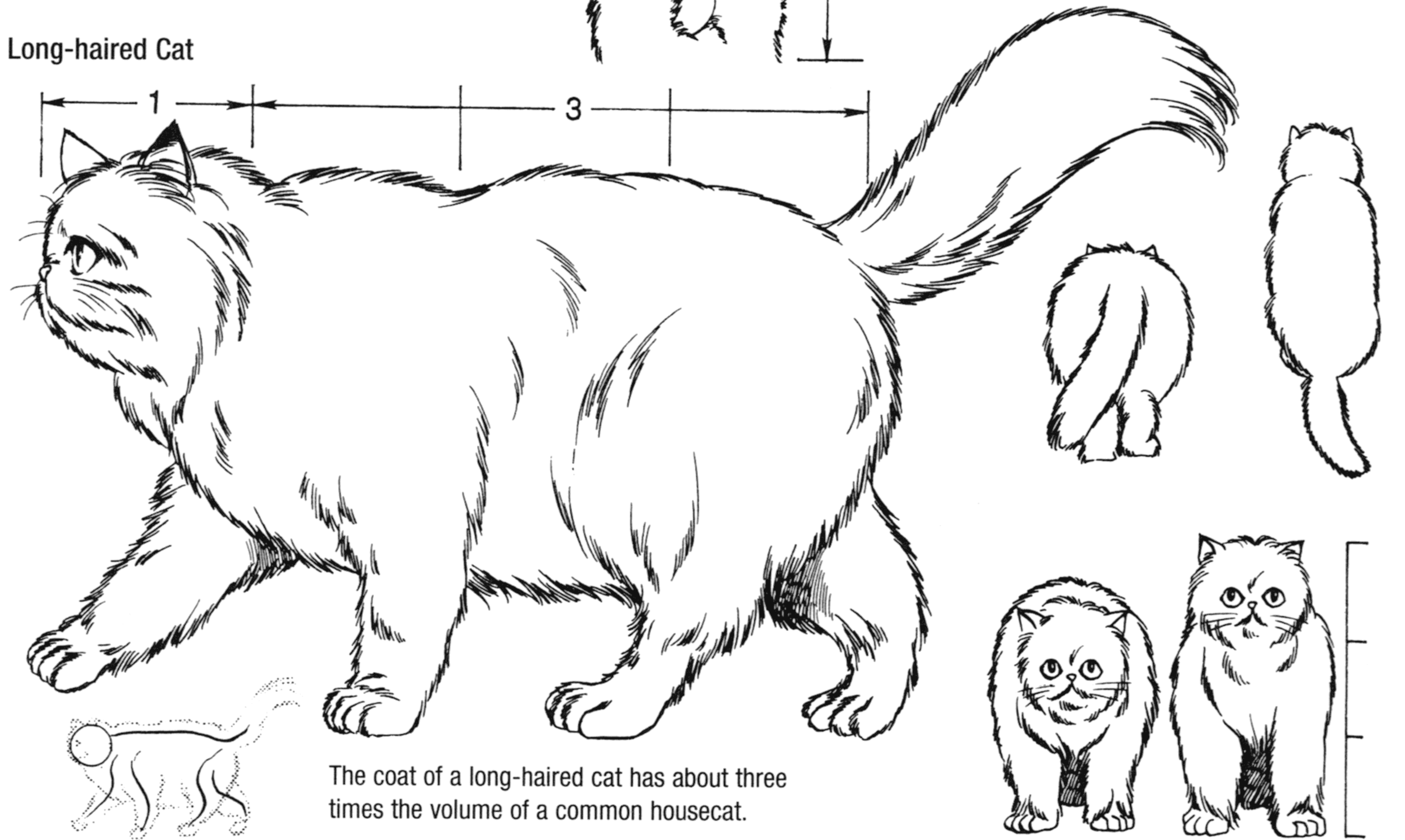
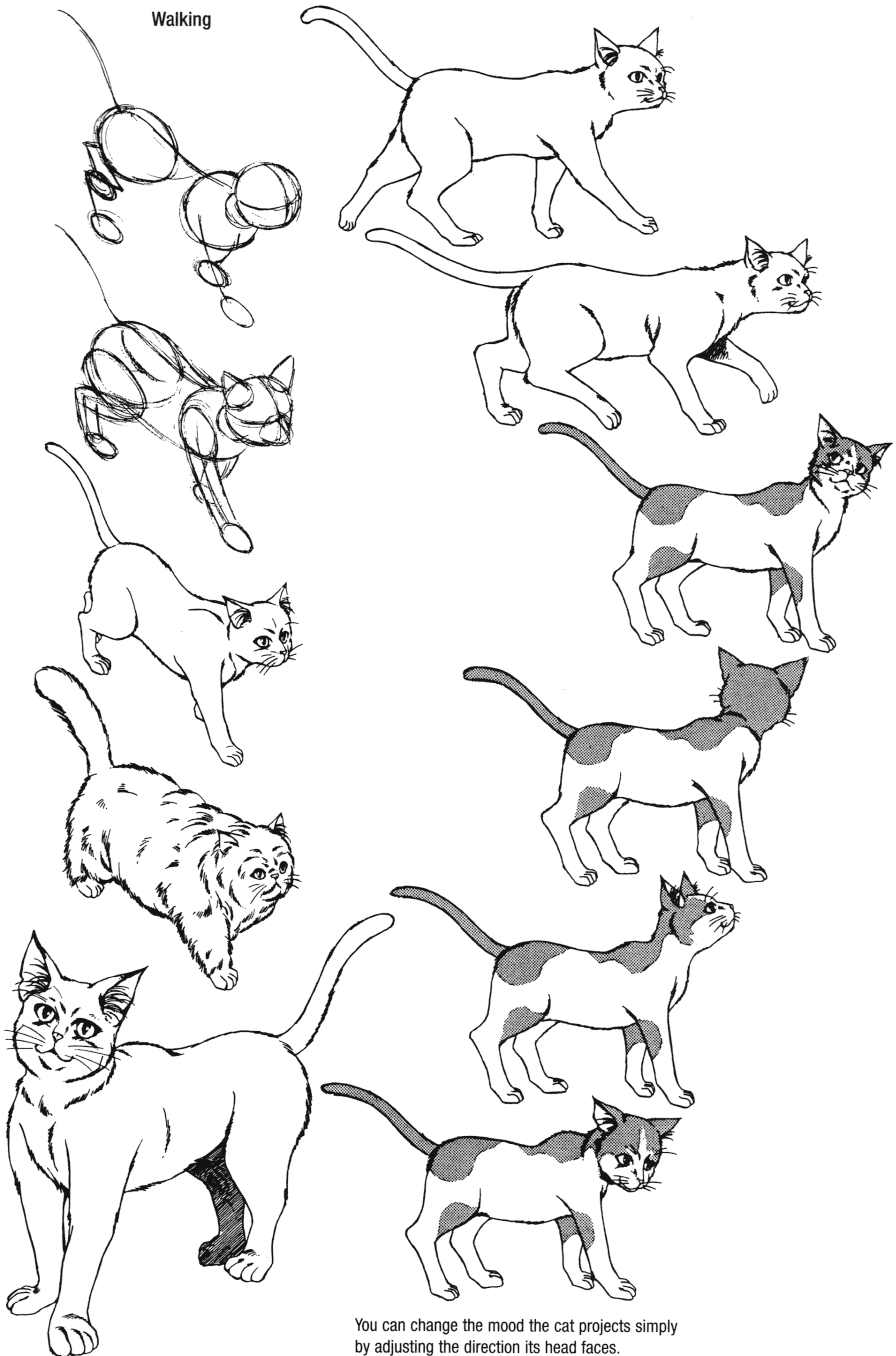
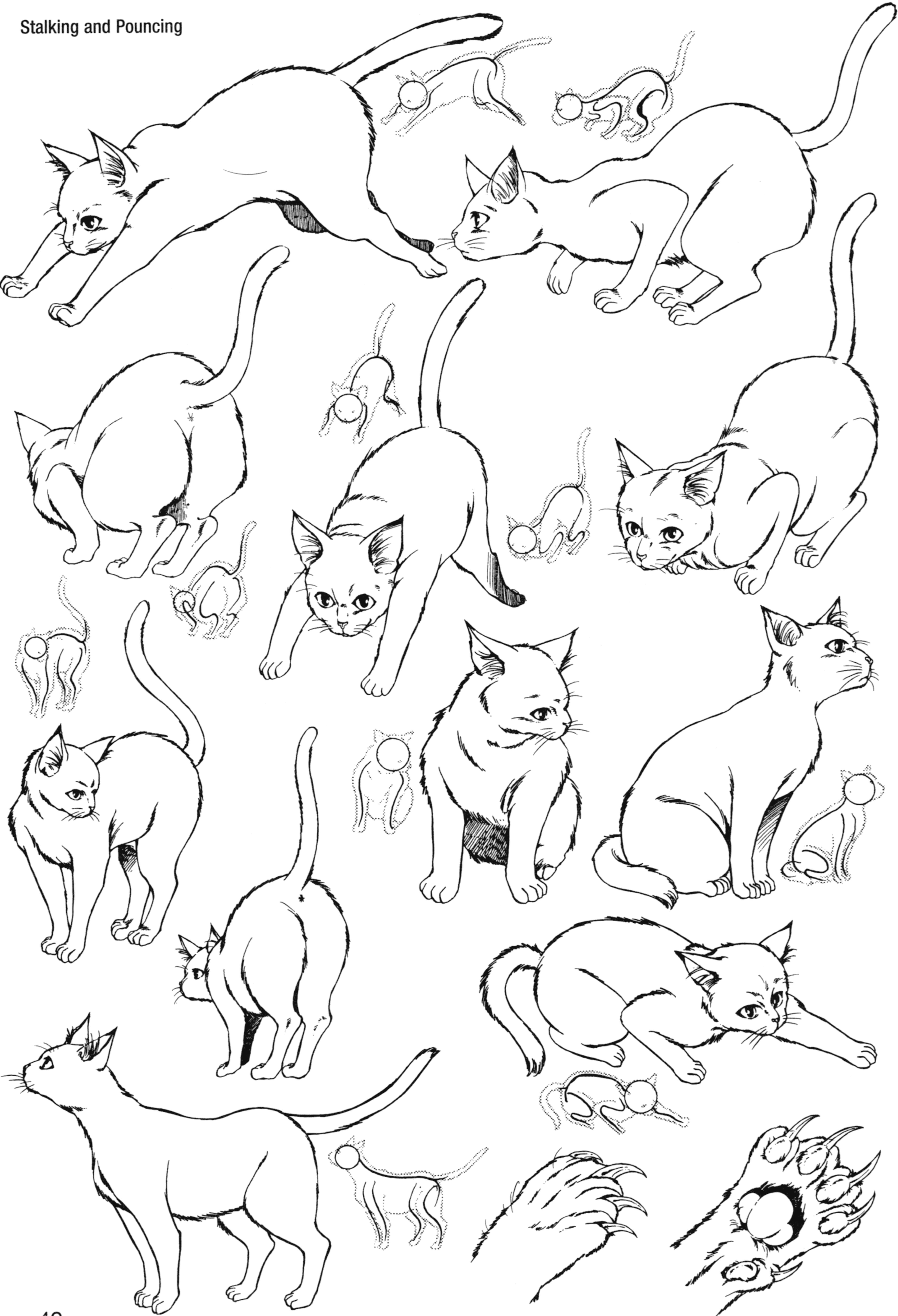
All of the digits touch the ground.

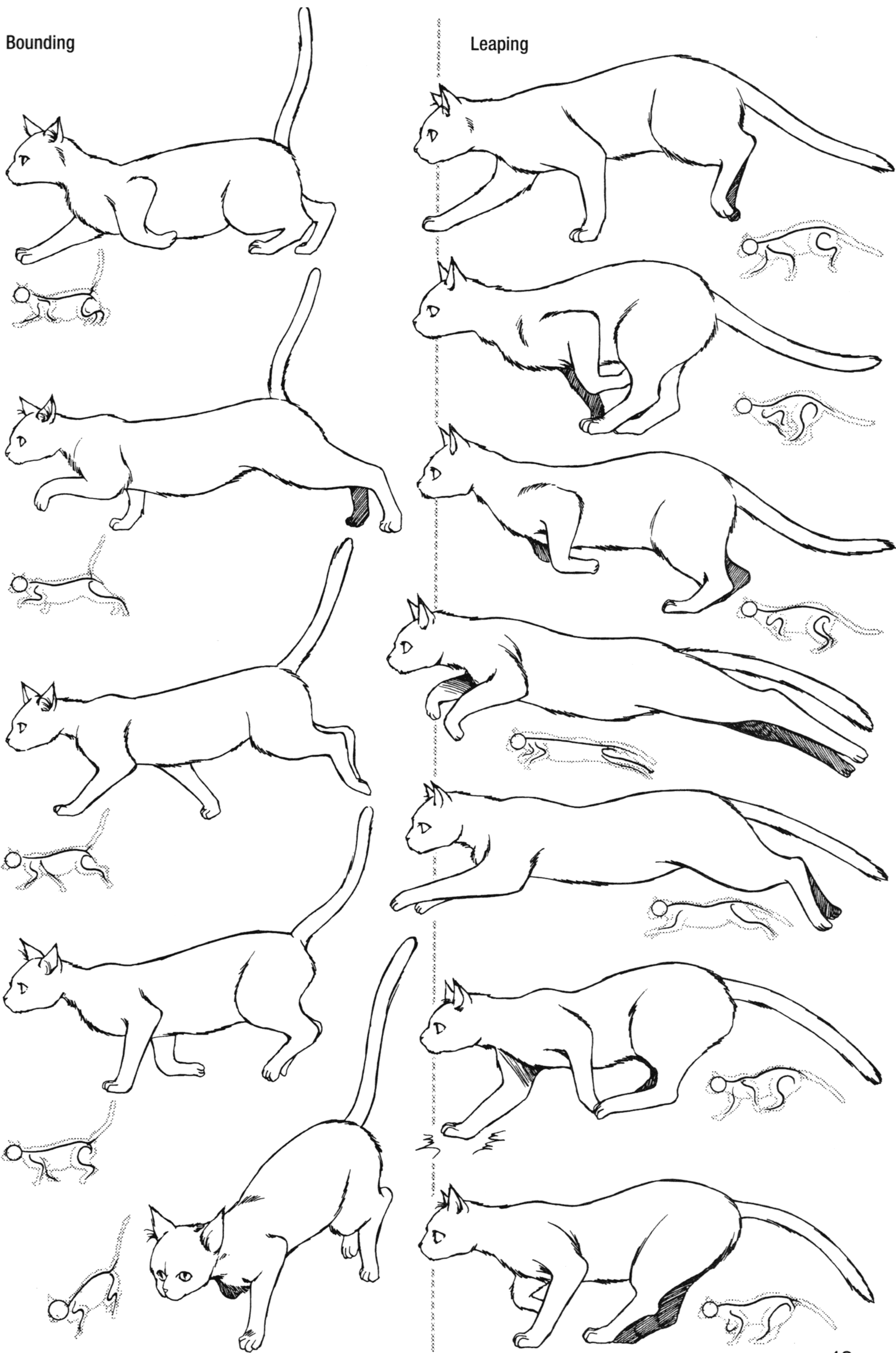
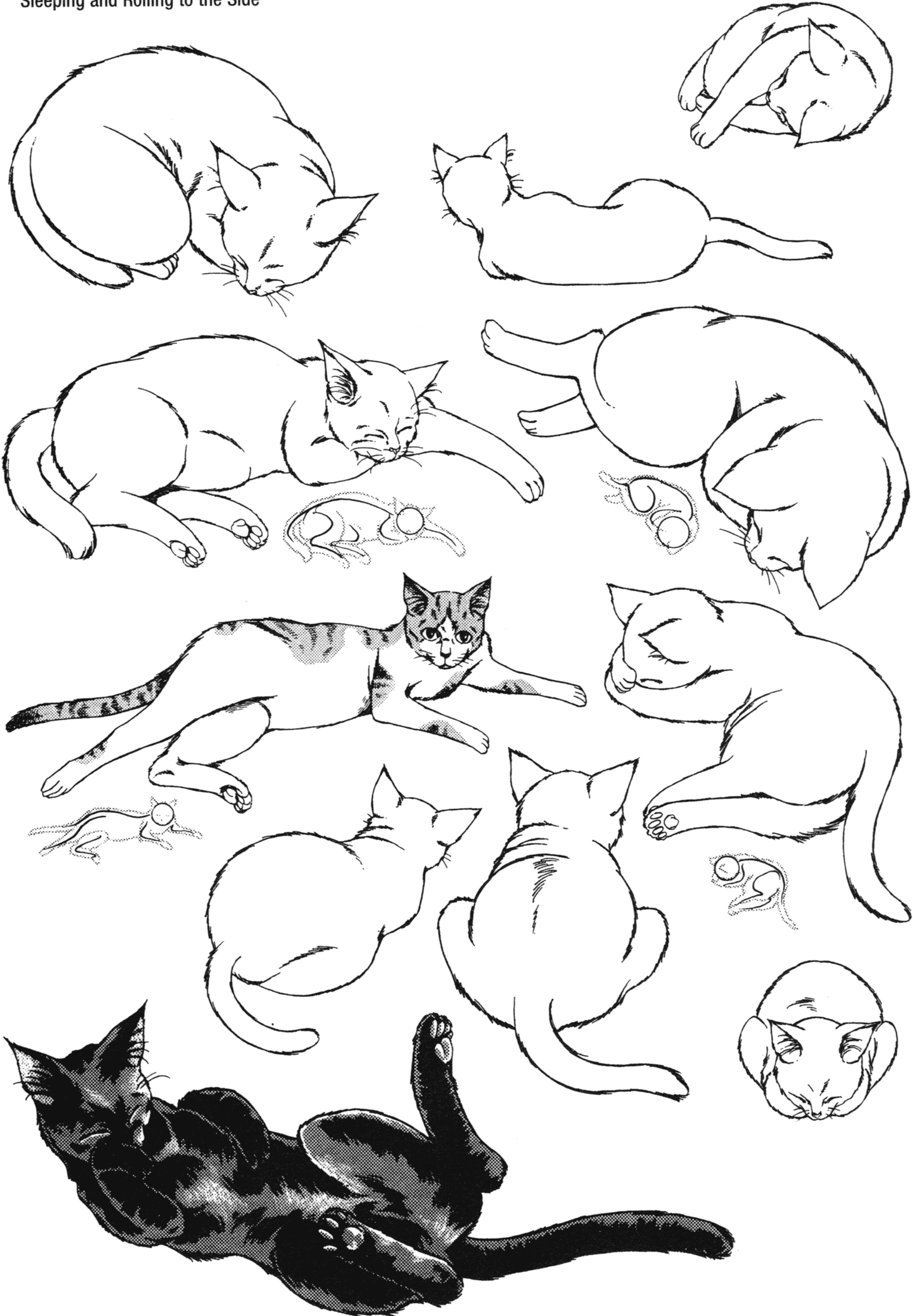
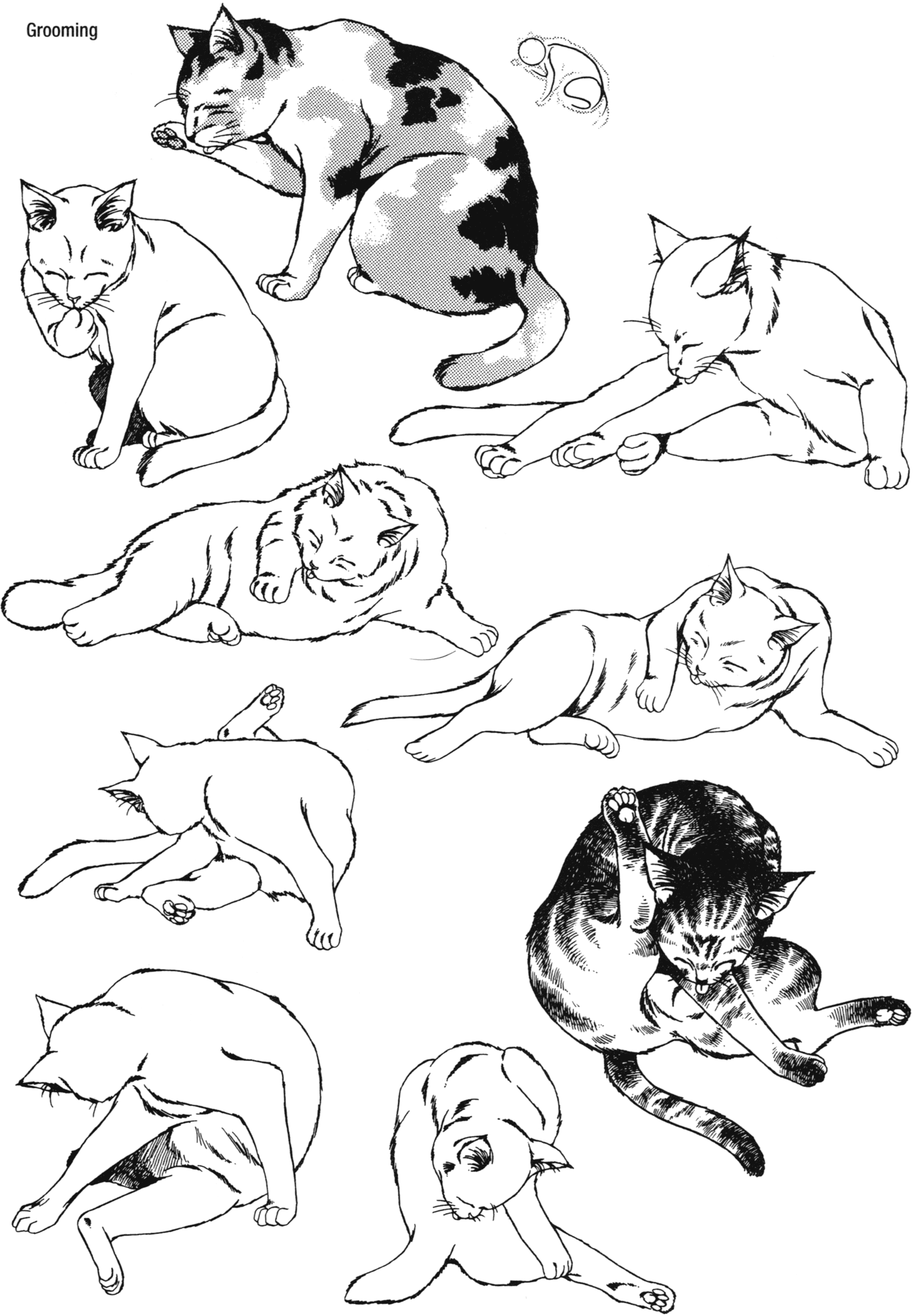
Portion normally touching the ground

Cat Paw

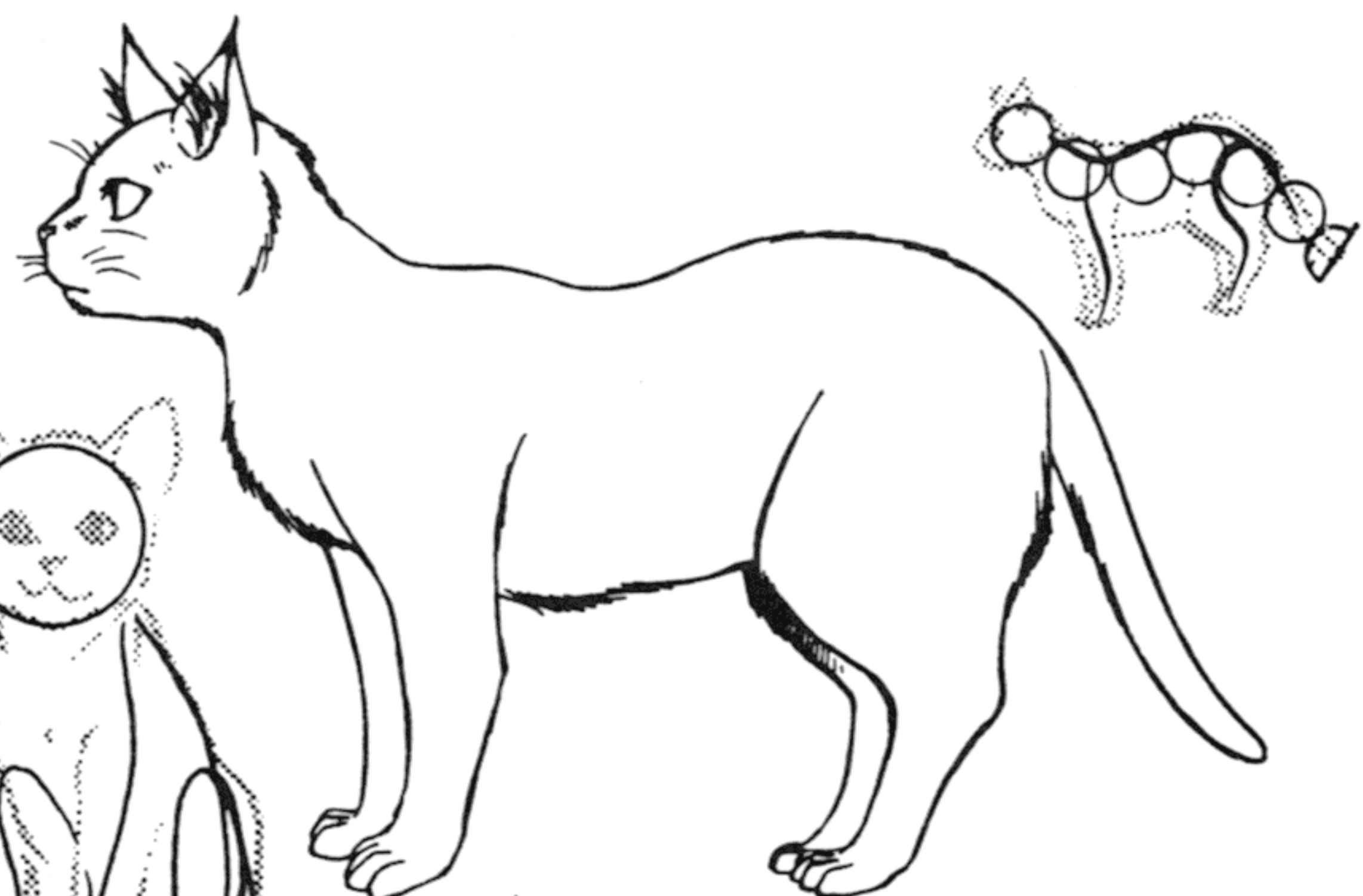
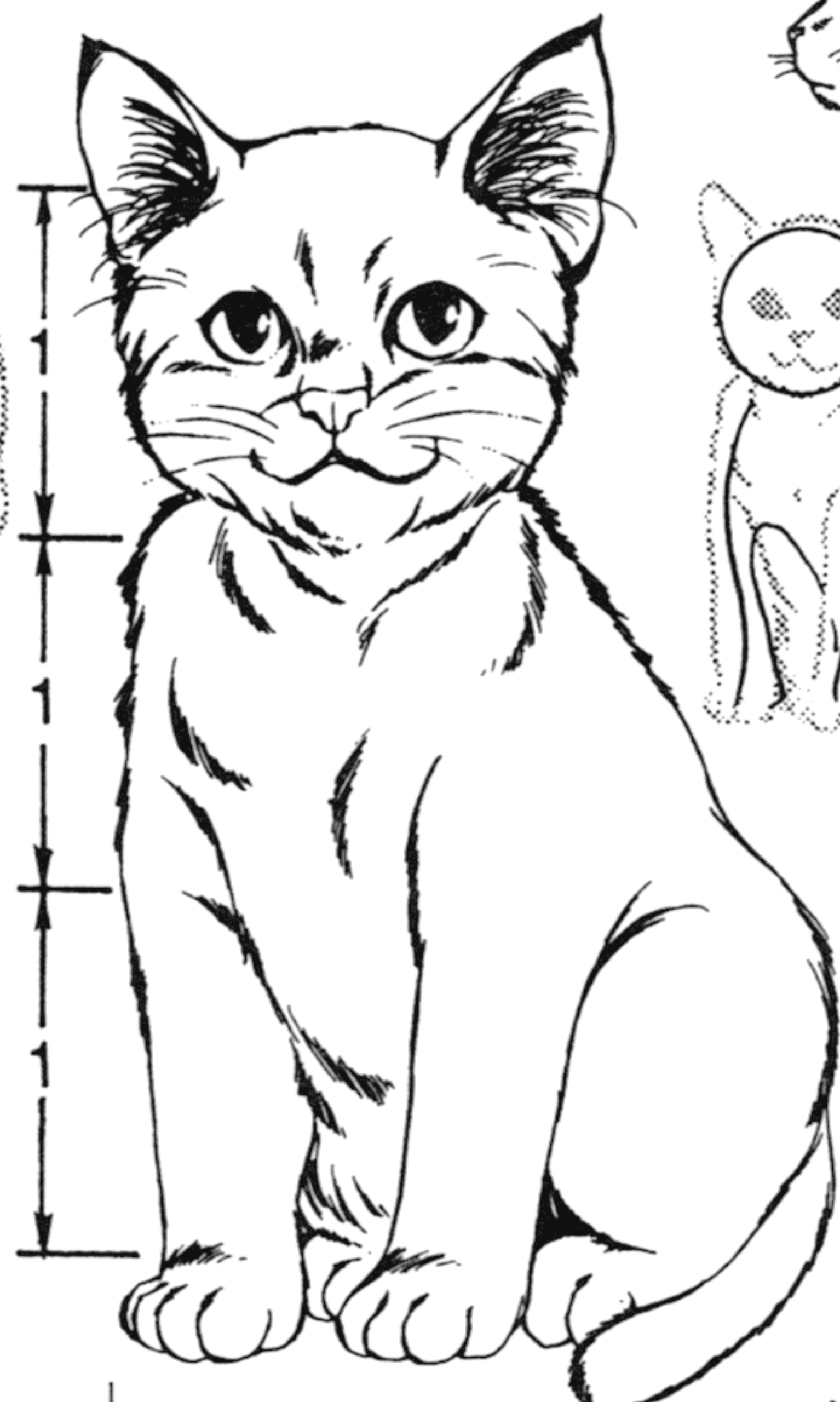
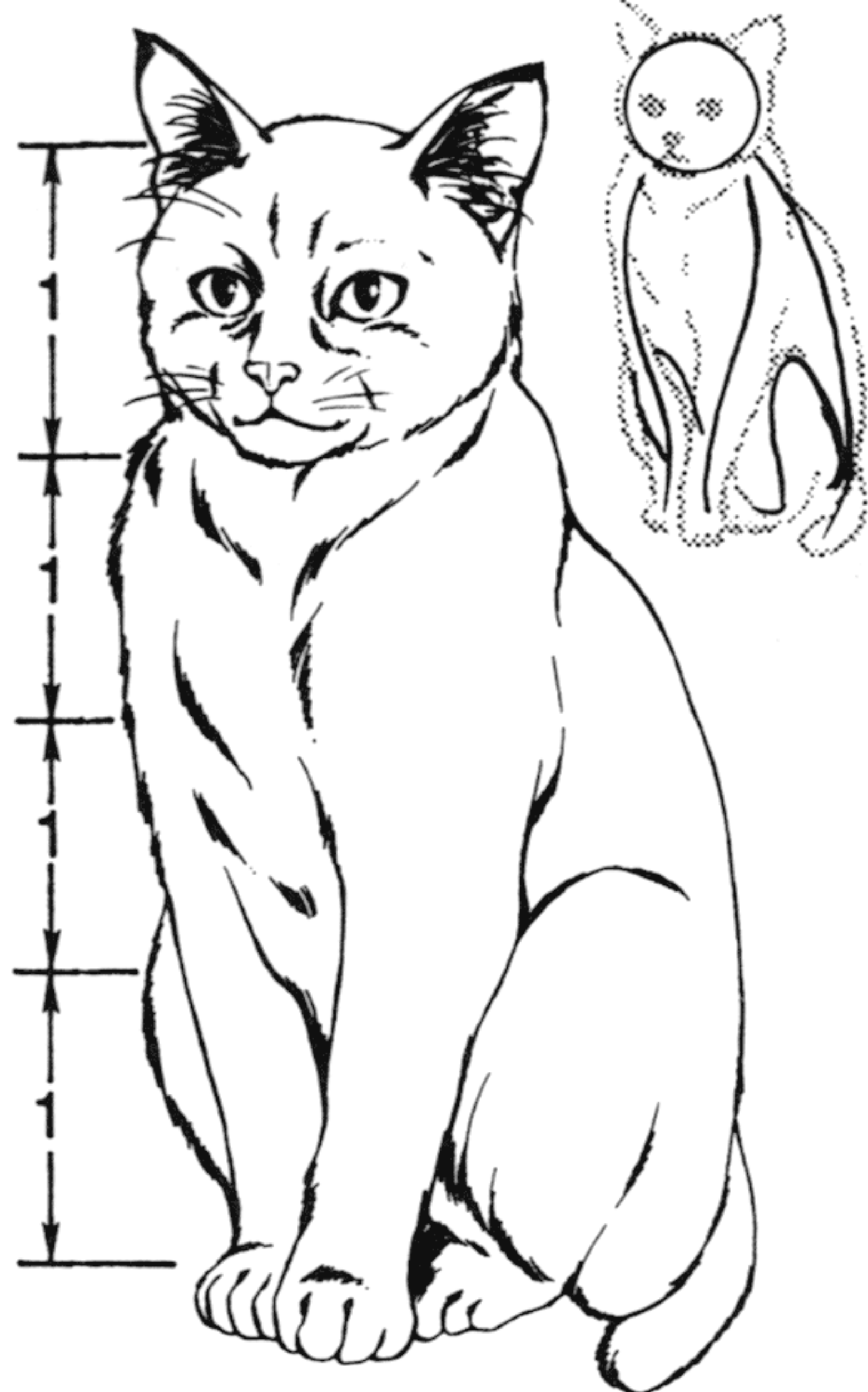
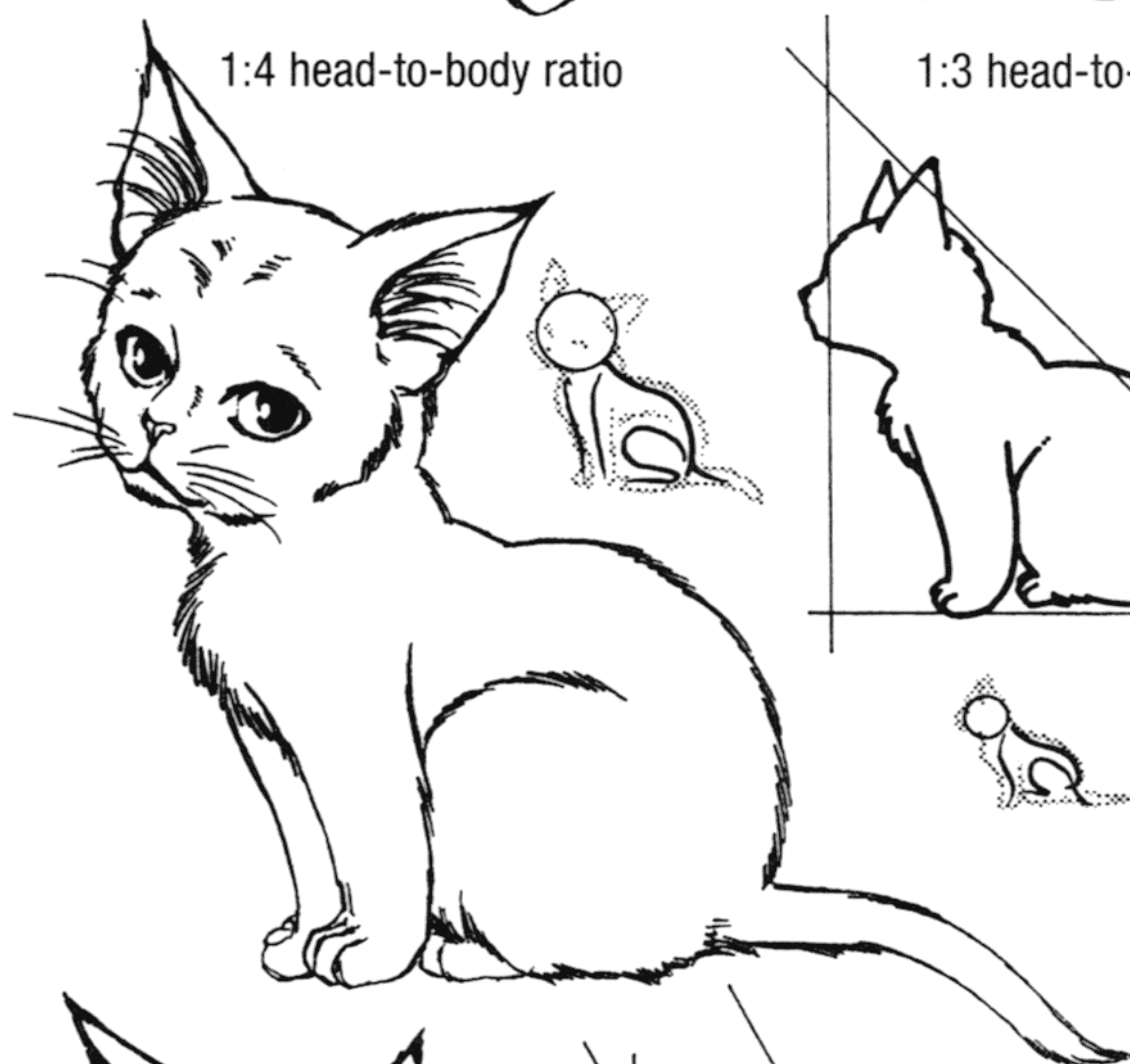
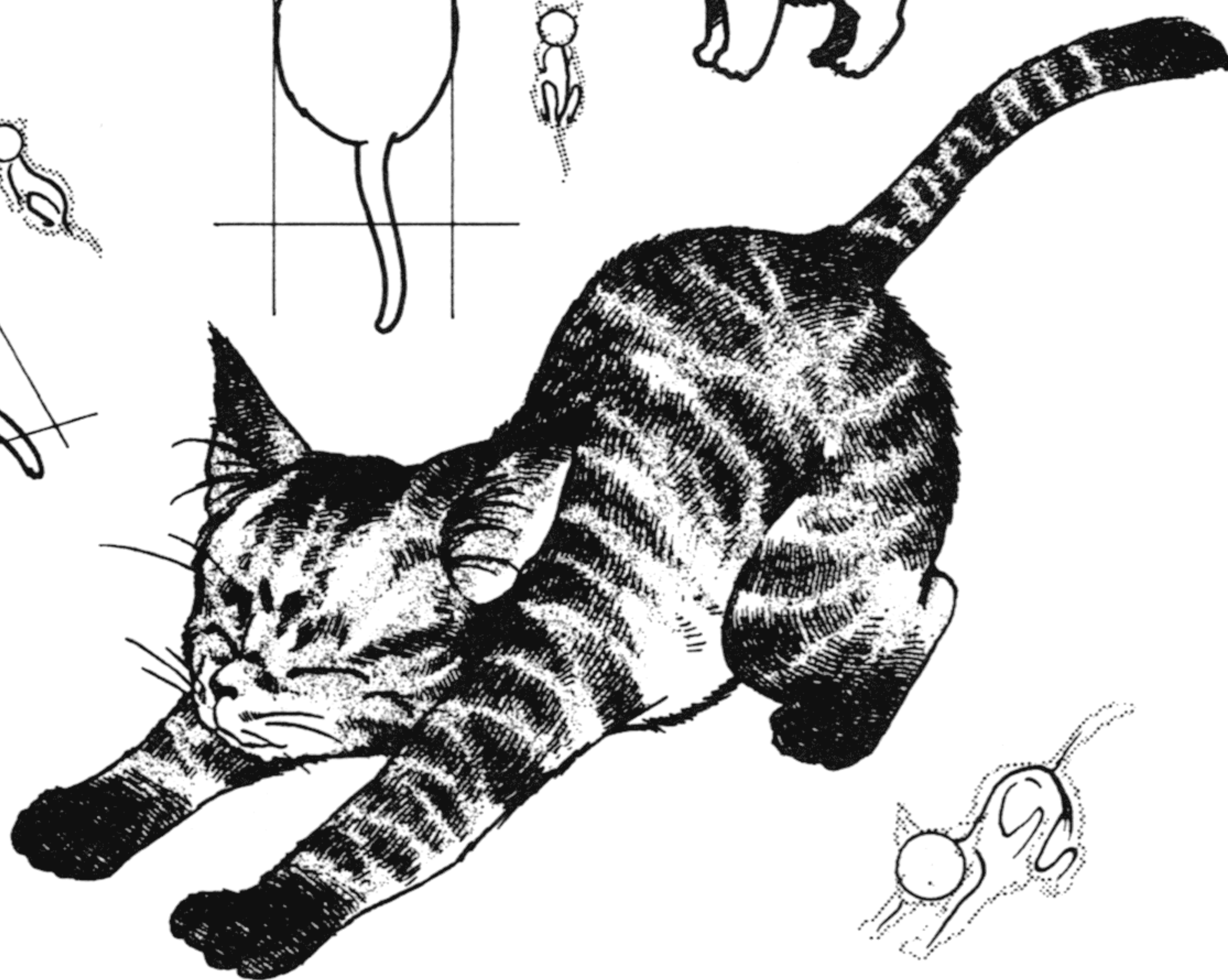
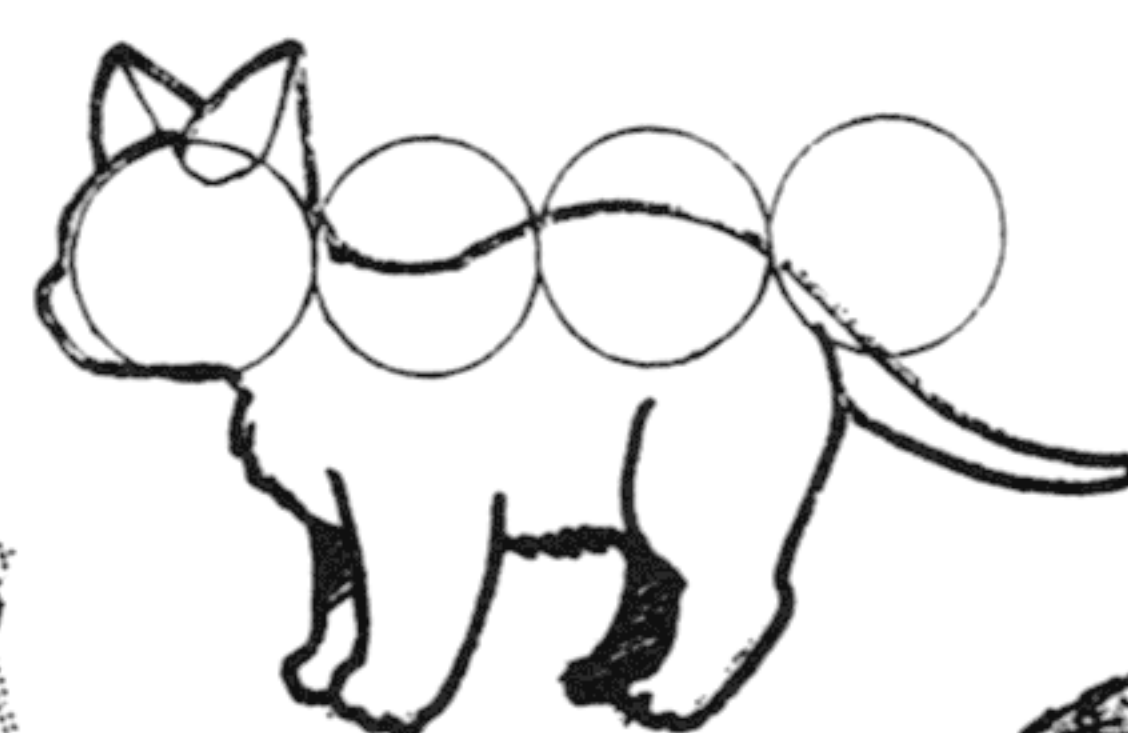
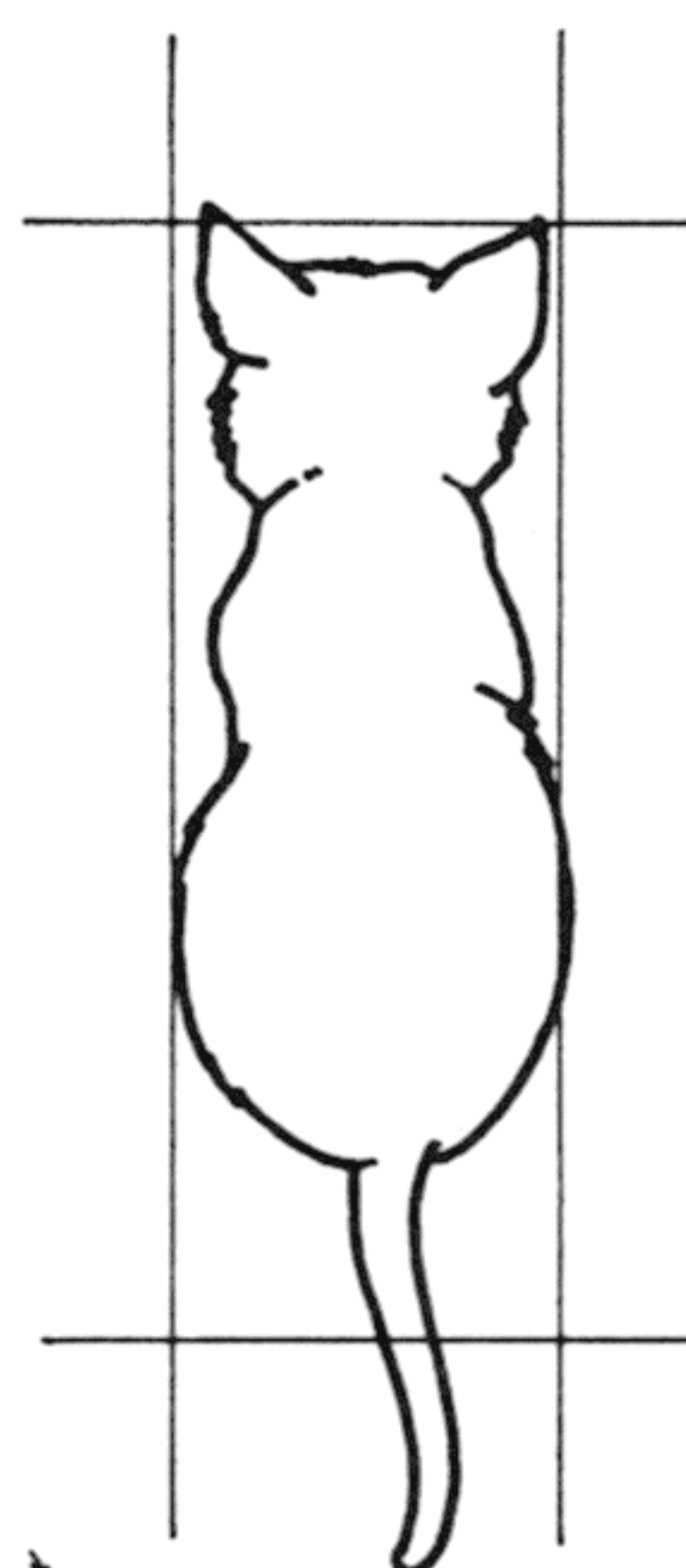
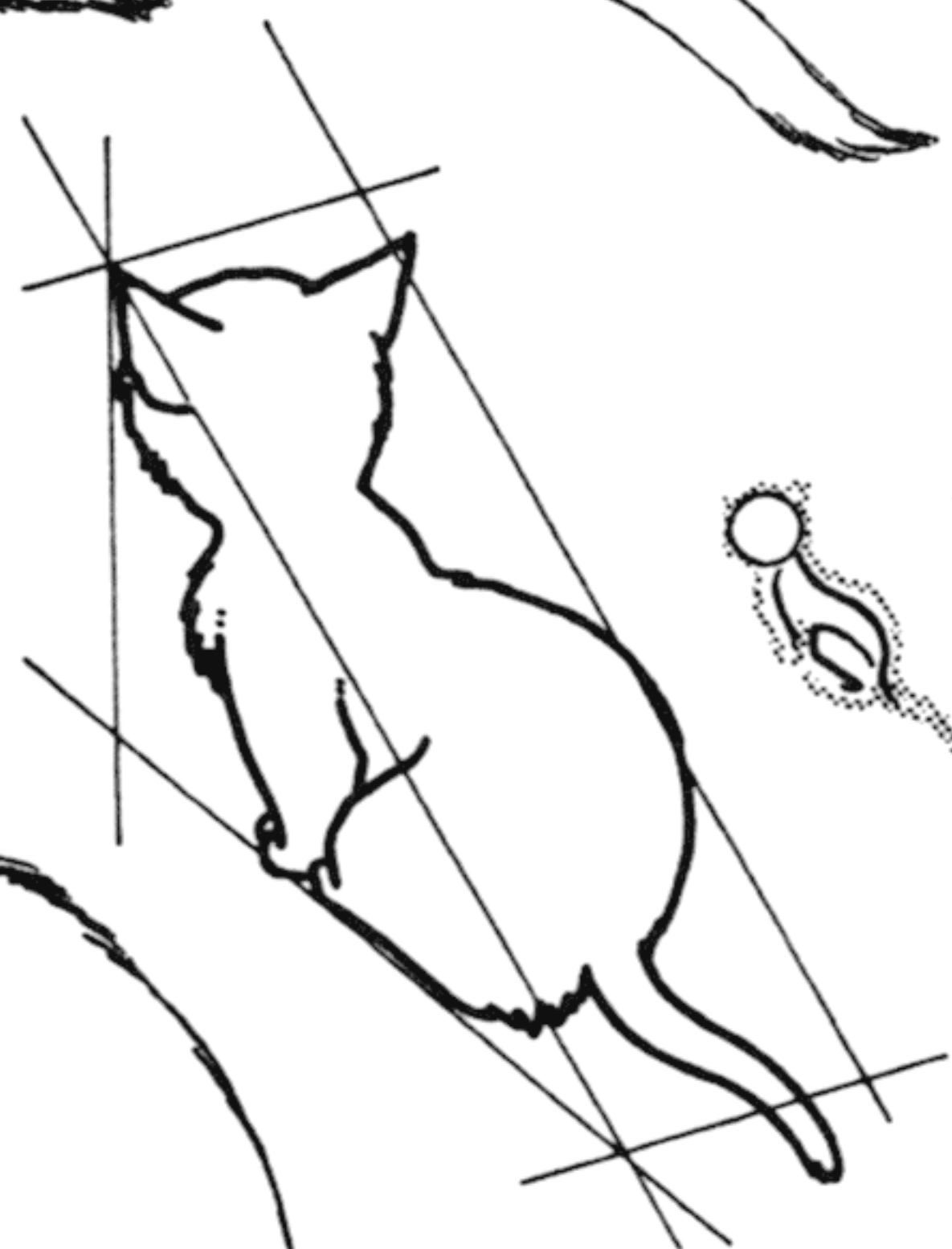
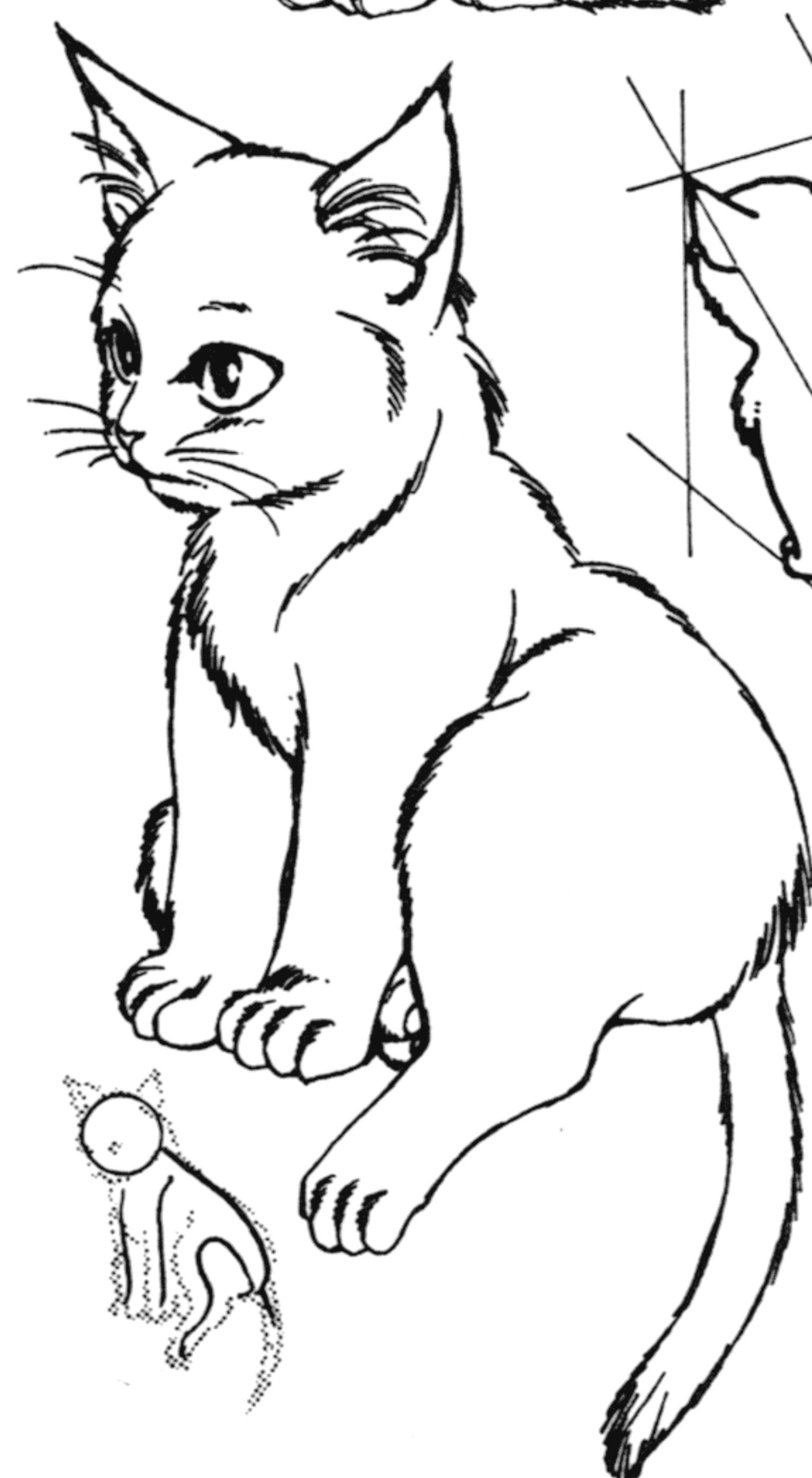
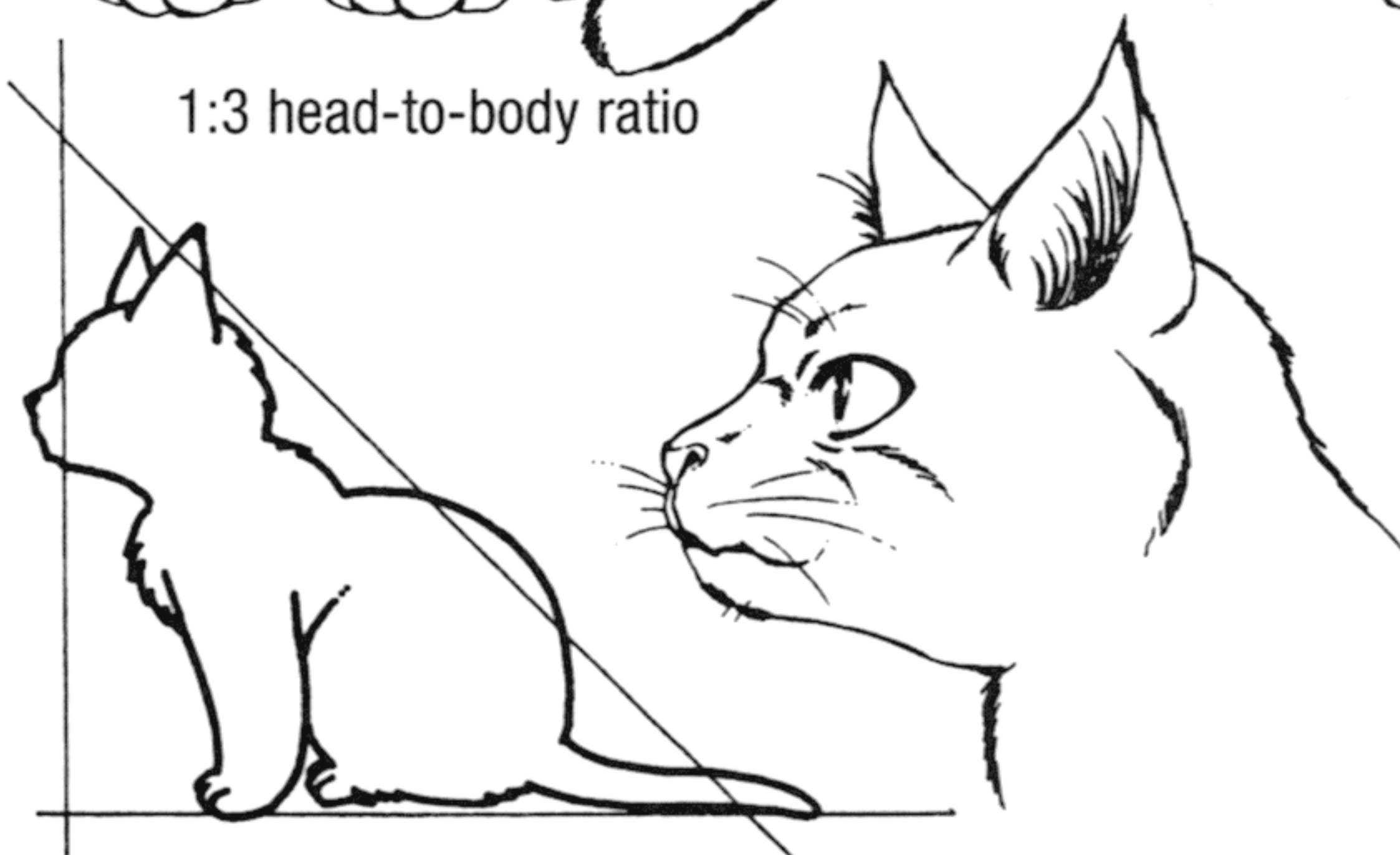
Long-haired Cat

1

3

The coat of a long-haired cat has about three times the volume of a common housecat.

Walking

You can change the mood the cat projects simply by adjusting the direction its head faces.

Bounding

Leaping

Holding a Cat

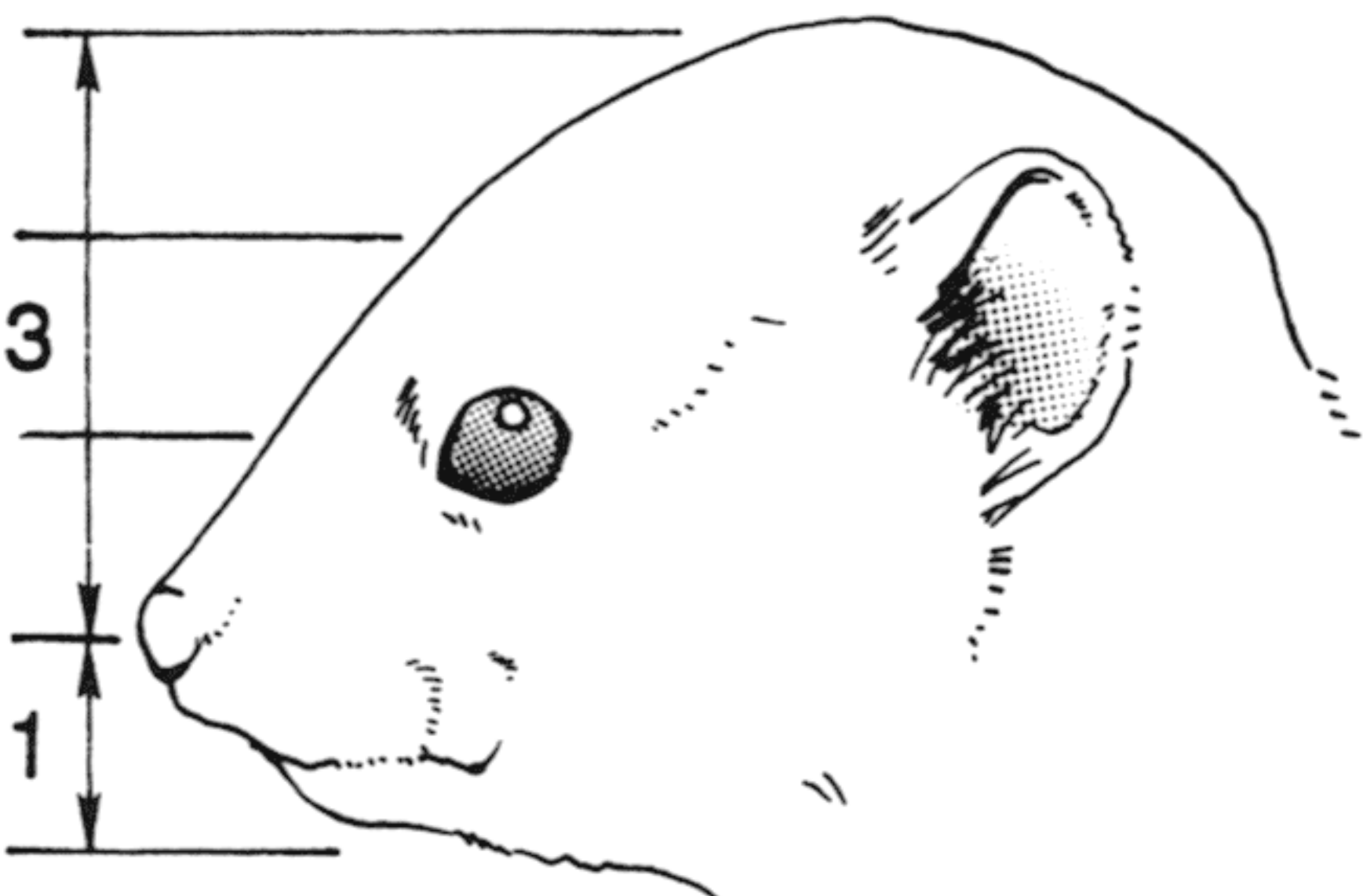
Lifting a Cat

An adult cat
Kitten shown at the same size as an adult cat
1
1
1
1
1
1
1
1
1:4 head-to-body ratio
1:3 head-to-body ratio

Ferrets

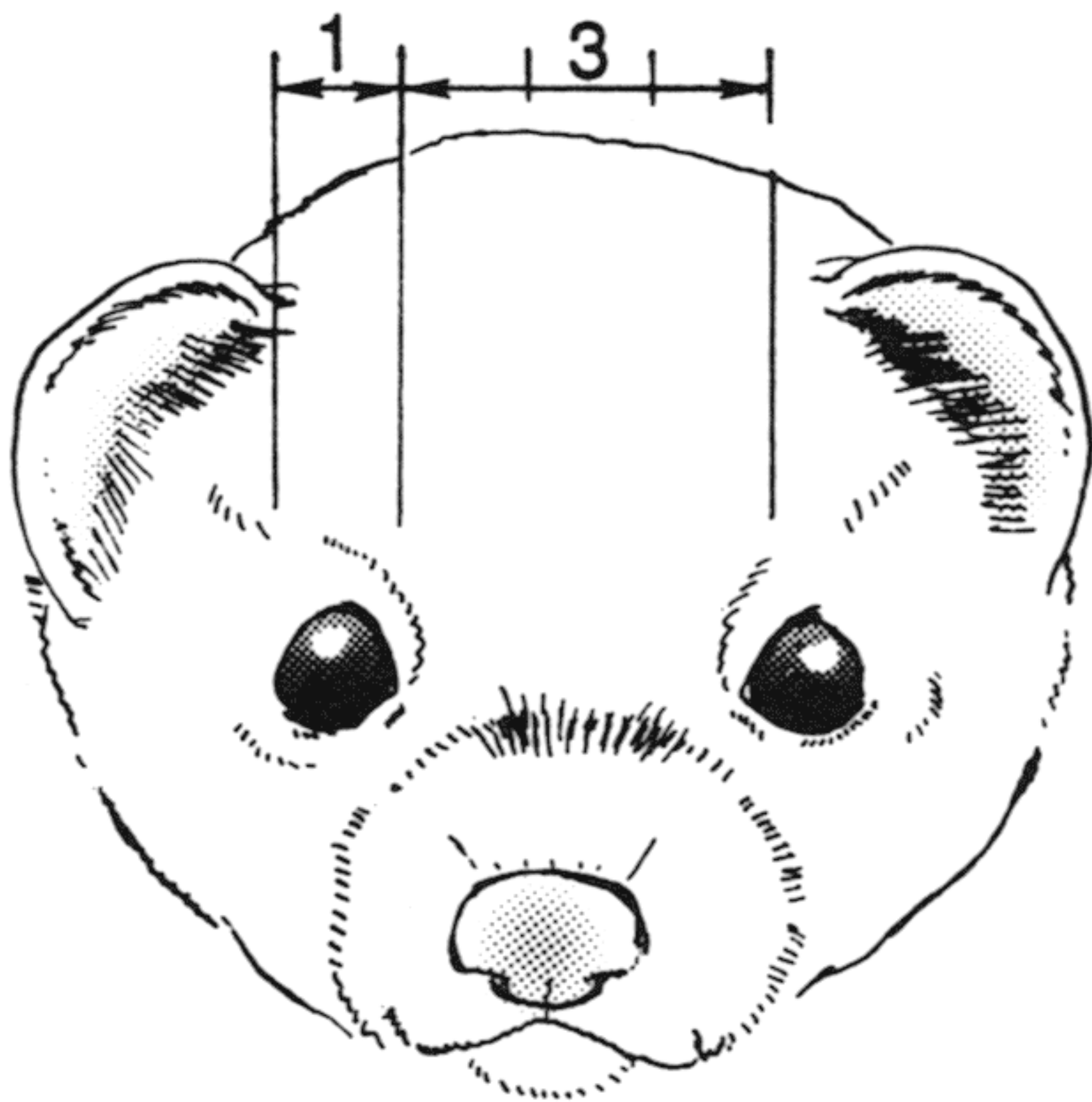
Ferrets are members of the weasel family. They have long bodies, and their tails occupy about 1/3 of their overall length. Their lithe bodies require sinuous lines to draw the figure's contours.

Keep the nose and mouth on the short side. The distance from the nose to the top of the head occupies about 3/4 of the head overall.

3

1

The profile is like a circle attached to a triangle. Add large ears almost the same size as four eyes stuck together.

The distance between the eyes is about three eyes in length.

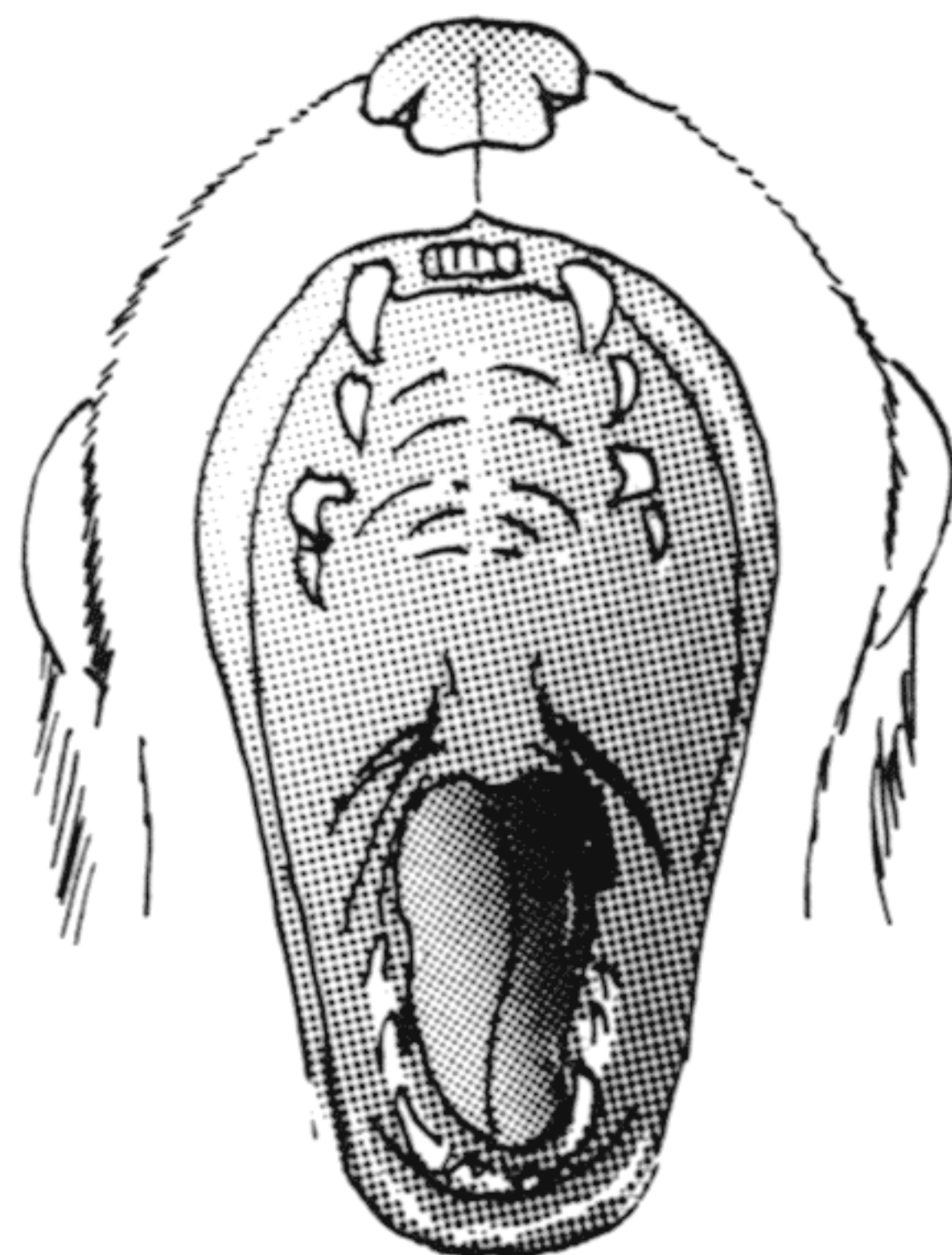
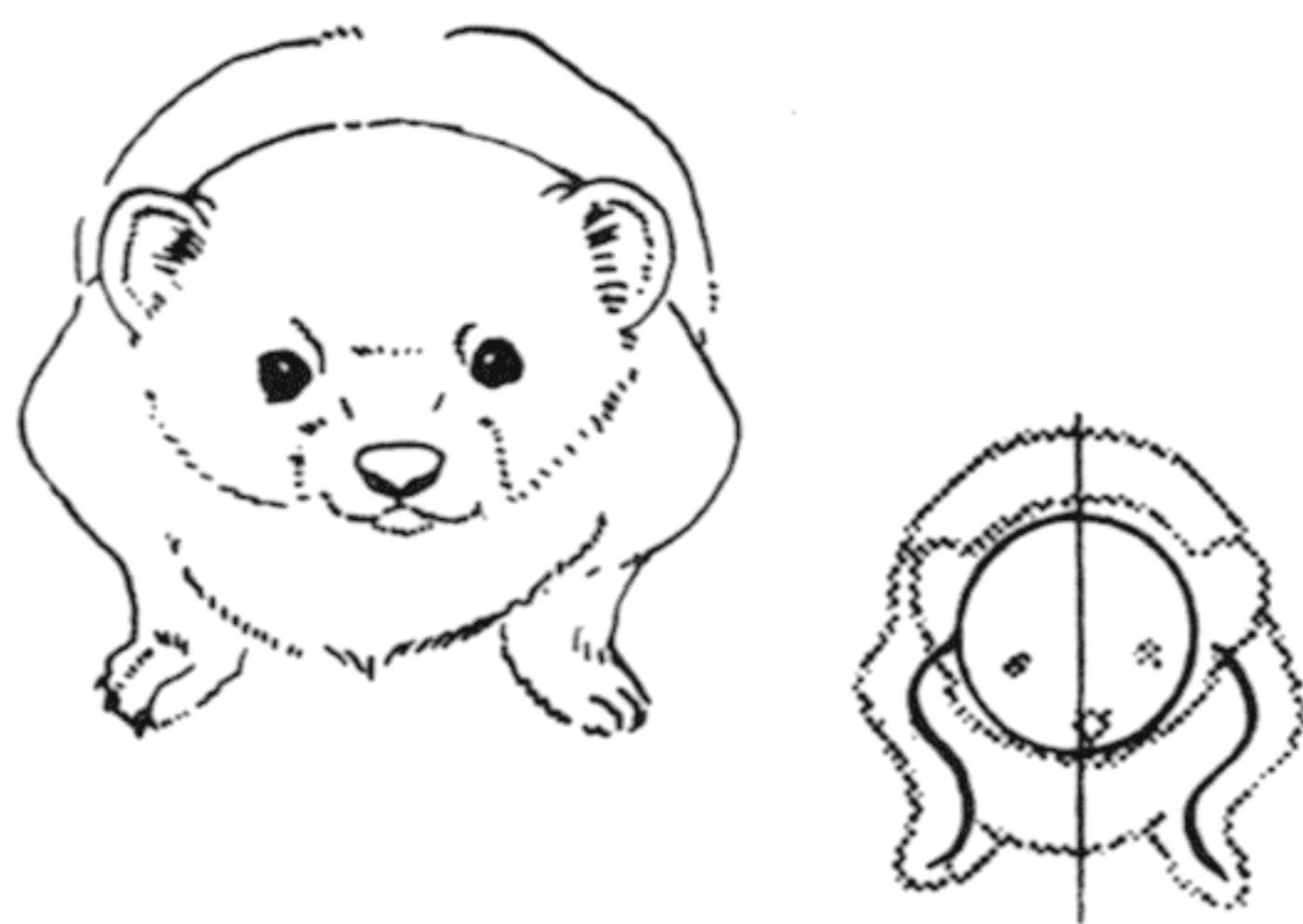
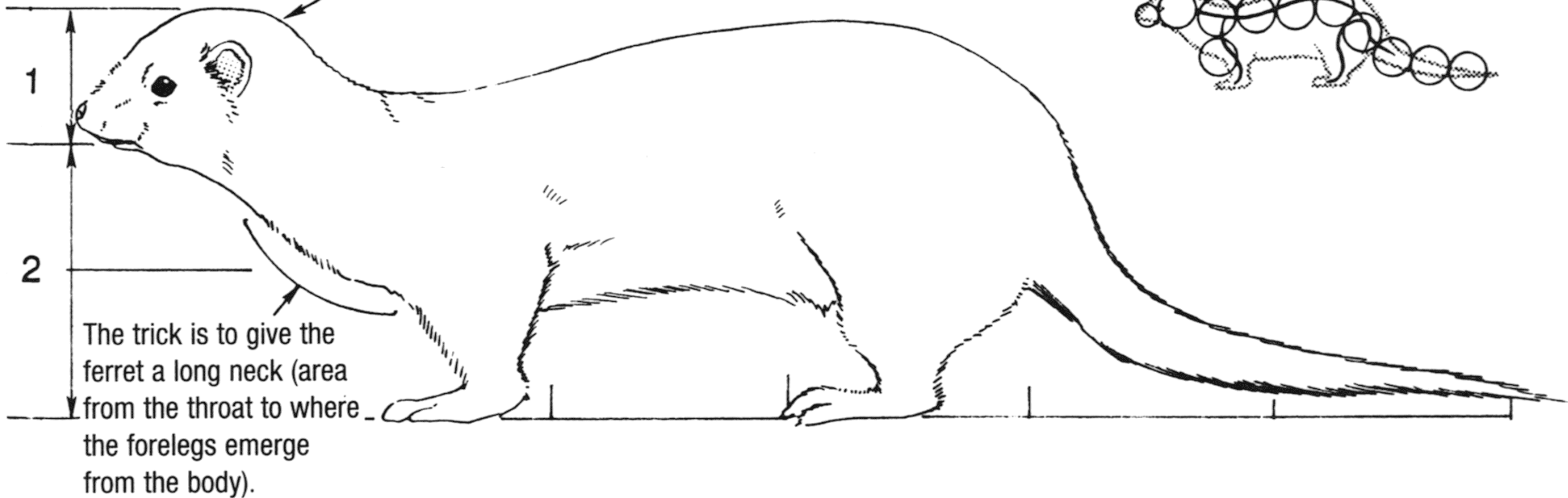
1 3

The semicircular ears almost perfectly stay within the face's contours and do not jut out.

The eye protrudes.

Use a sinuous S-curve to connect the crown of the head to the neck to the back.

1

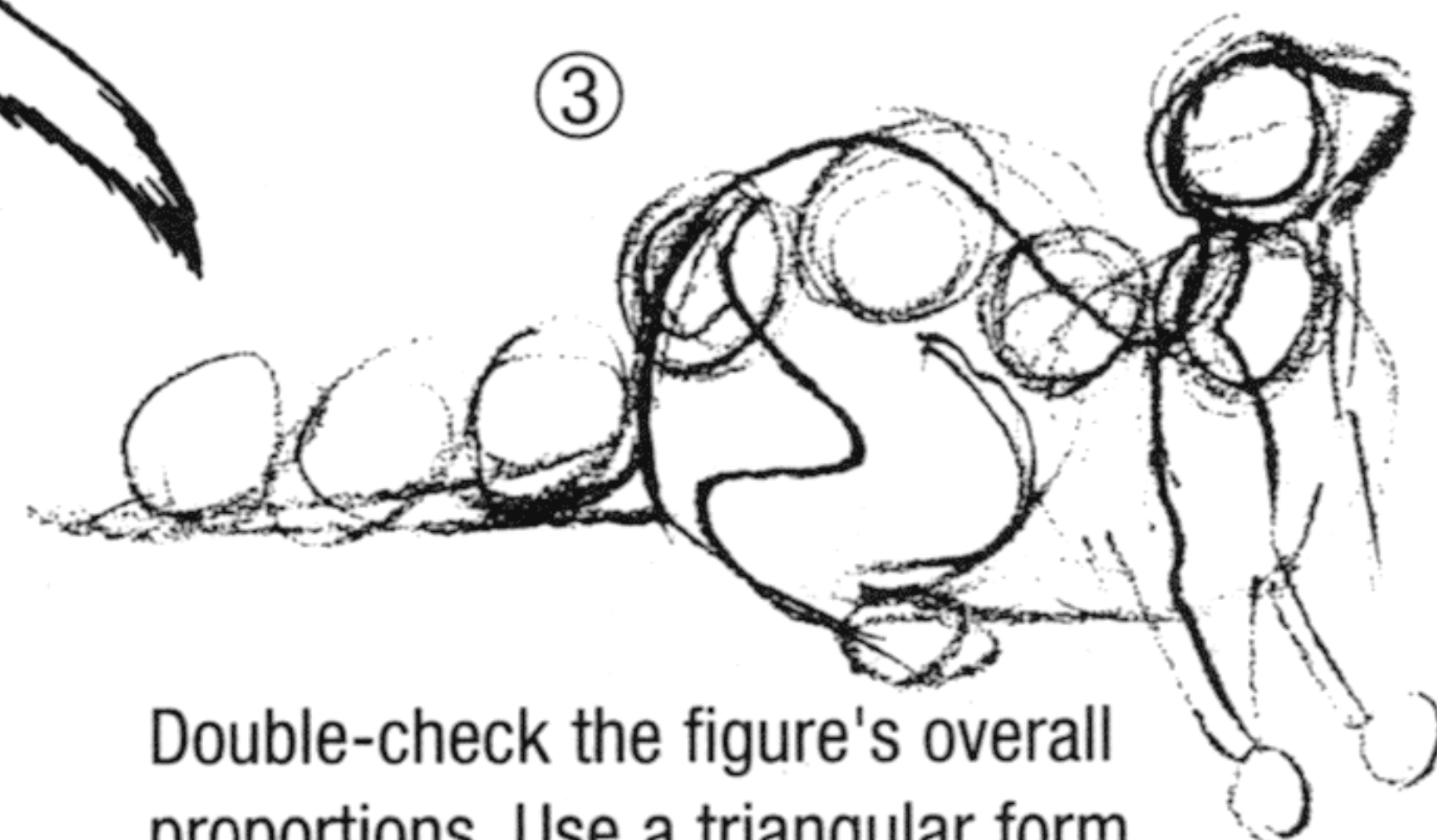
2

The trick is to give the ferret a long neck (area from the throat to where the forelegs emerge from the body).

Give the ferret small, thin, sharp nails.

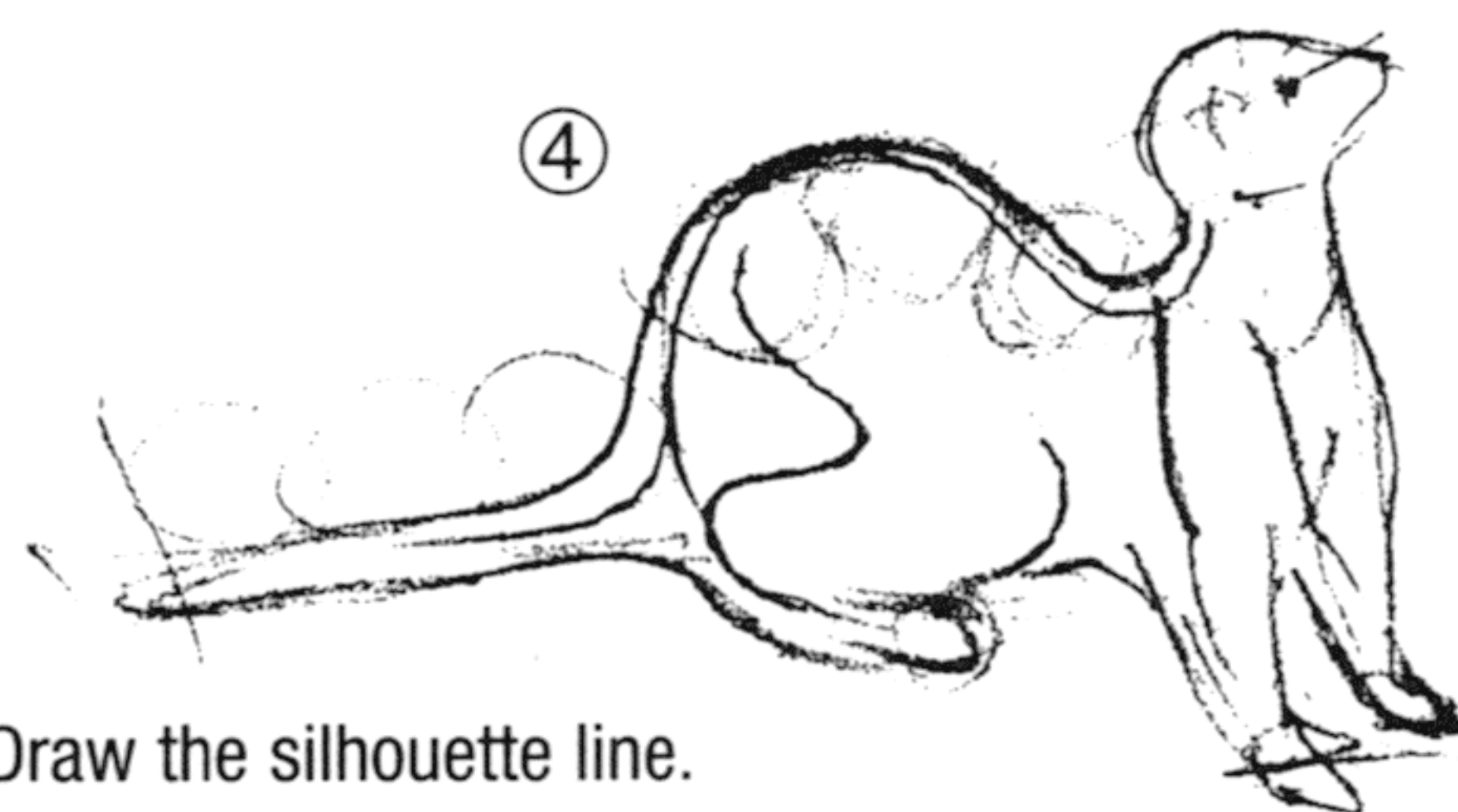
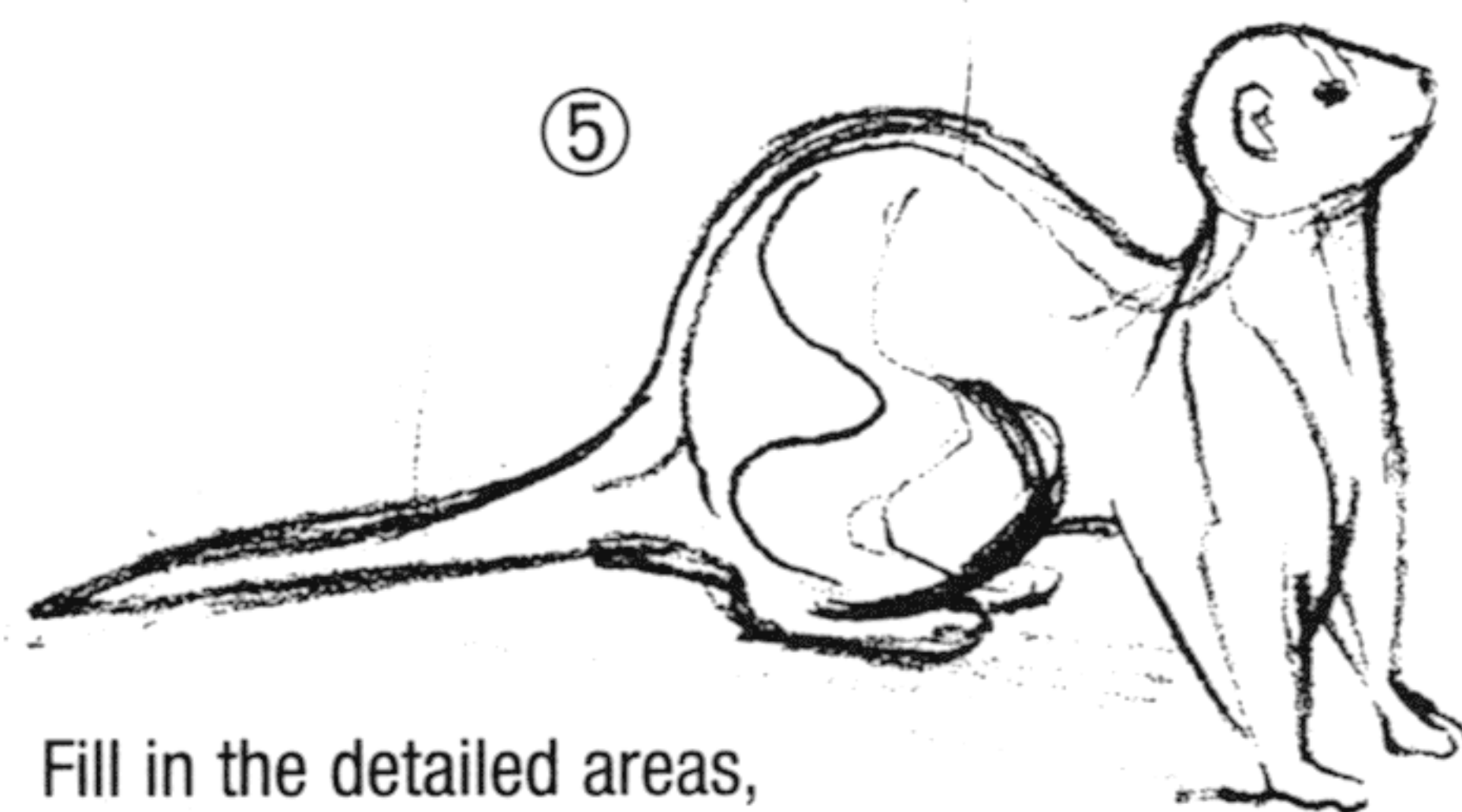
The toes are longish, taking up about 1/4 of the entire foot.

Tufts of hair at the ears

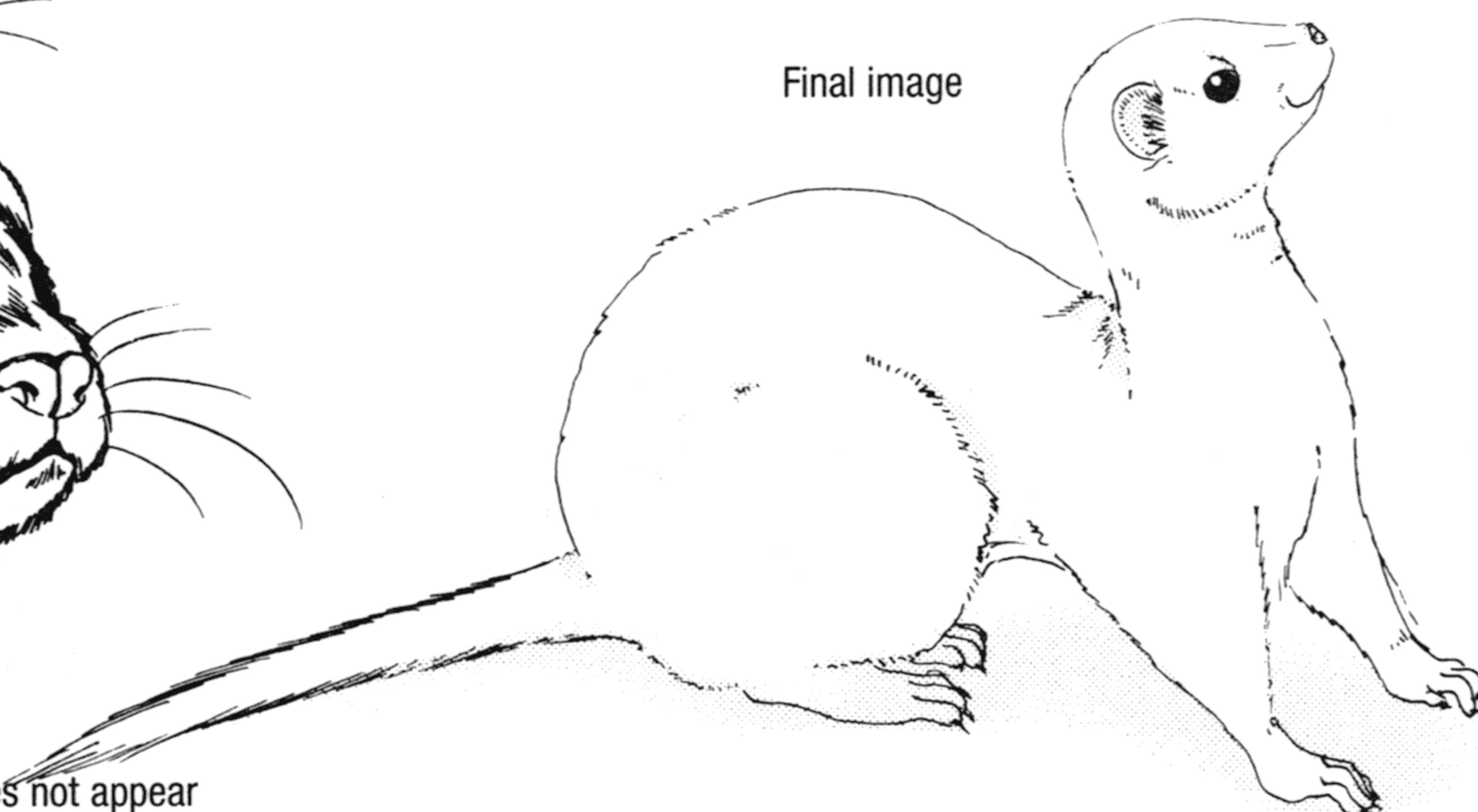
① Flow of the overall figure

② Flesh out the sketch and draw a triangle for the snout.

③ Double-check the figure's overall proportions. Use a triangular form for the legs as well.

The legs are approximately the same length as the head.

The upper body from the thoracic region up shown from the front: If the trunk is not included, then the figure appears to be a close-up of the front.

④ Draw the silhouette line. Add in the eyes and ears.

⑤ Fill in the detailed areas, such as the legs.

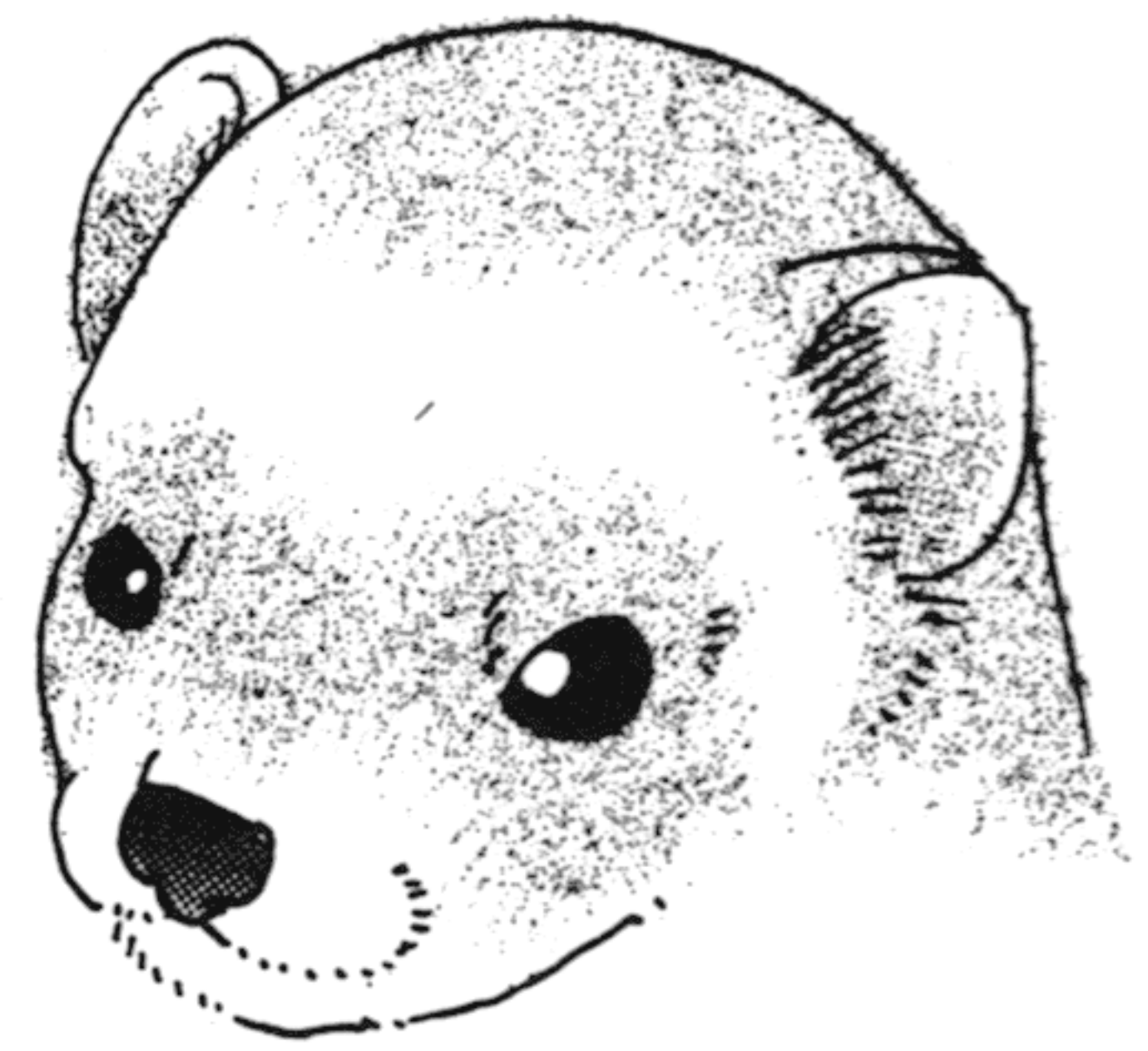
Final image

From a high, 3/4 angle, the nose does not appear pointed. Use a flattish elliptical form for the snout.

The forelegs are approximately as long as the head.

Ferret Colors

All ferrets have the same shaped head. However, their eye color, fur patterns, and coloration do vary.

White with black eyes

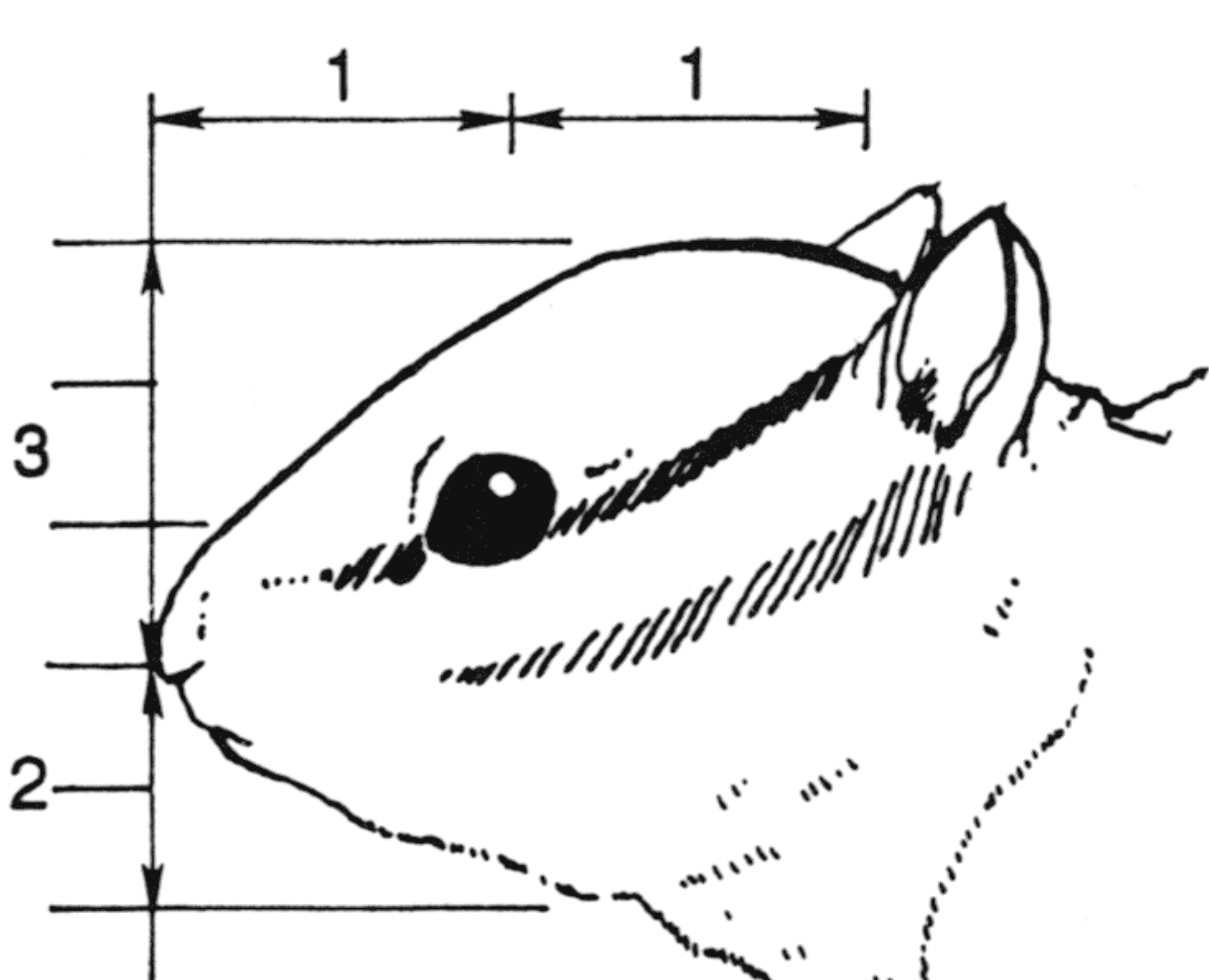
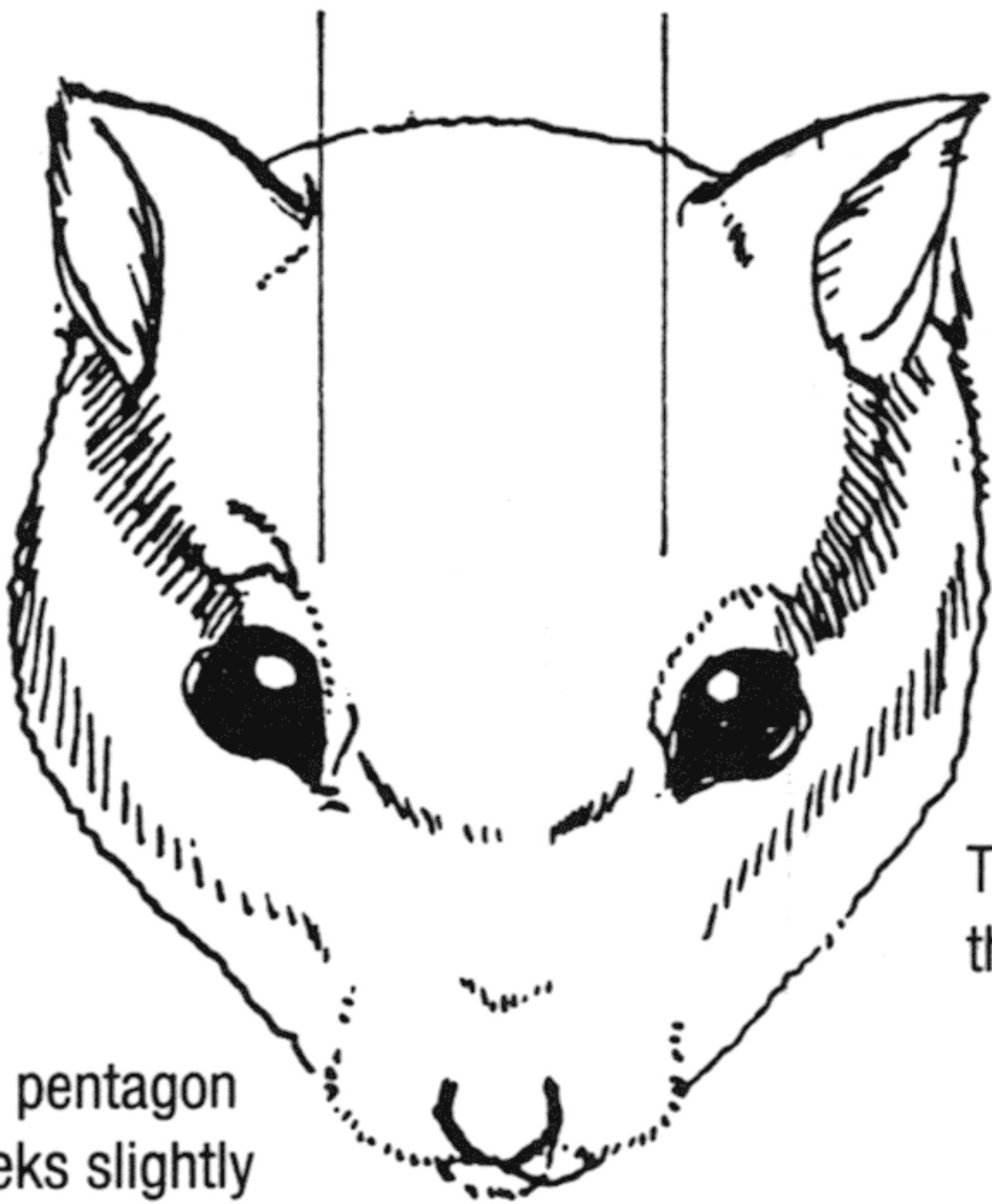
Albino (red eyes)

Butterscotch

Sable

Silver

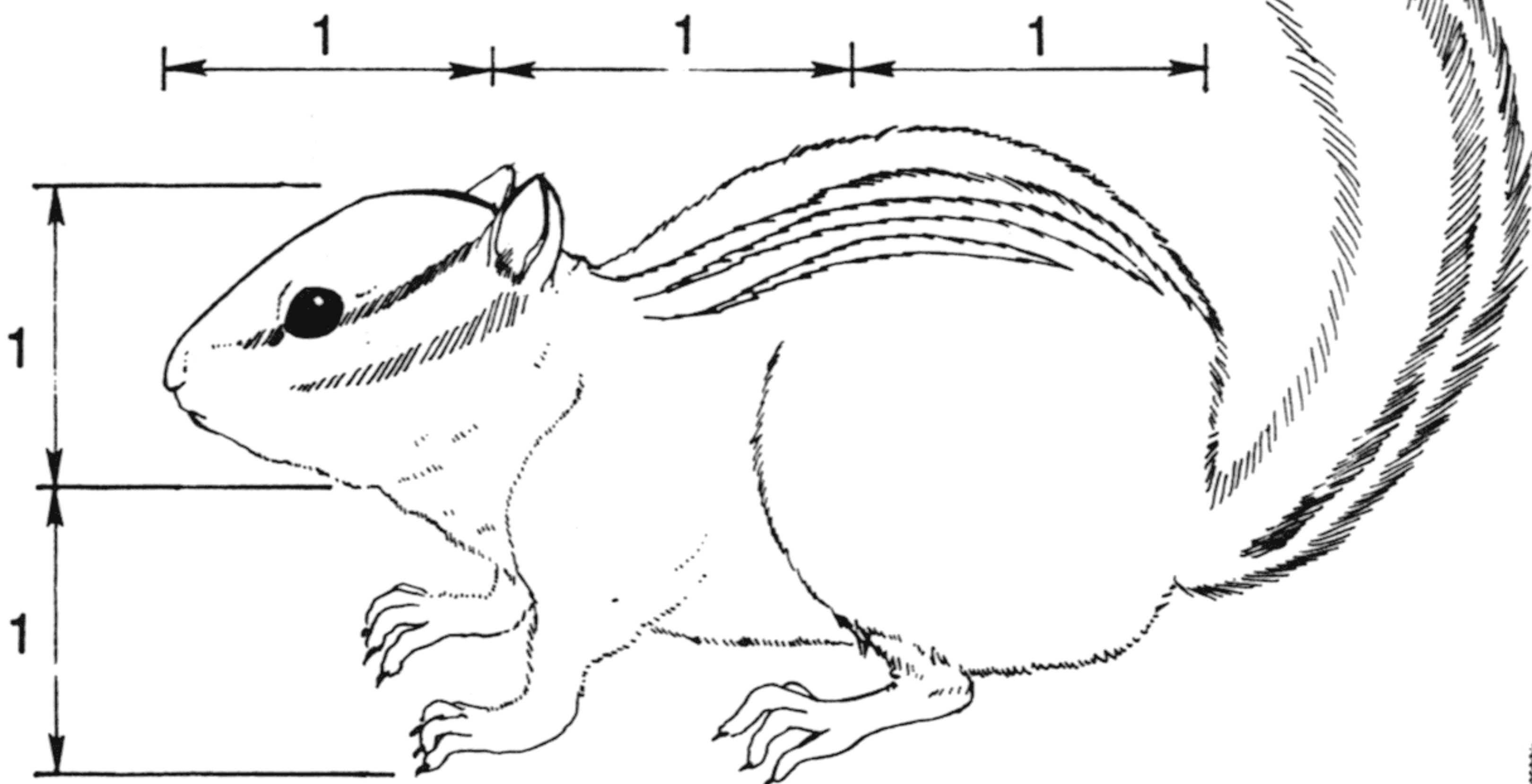
Chipmunks

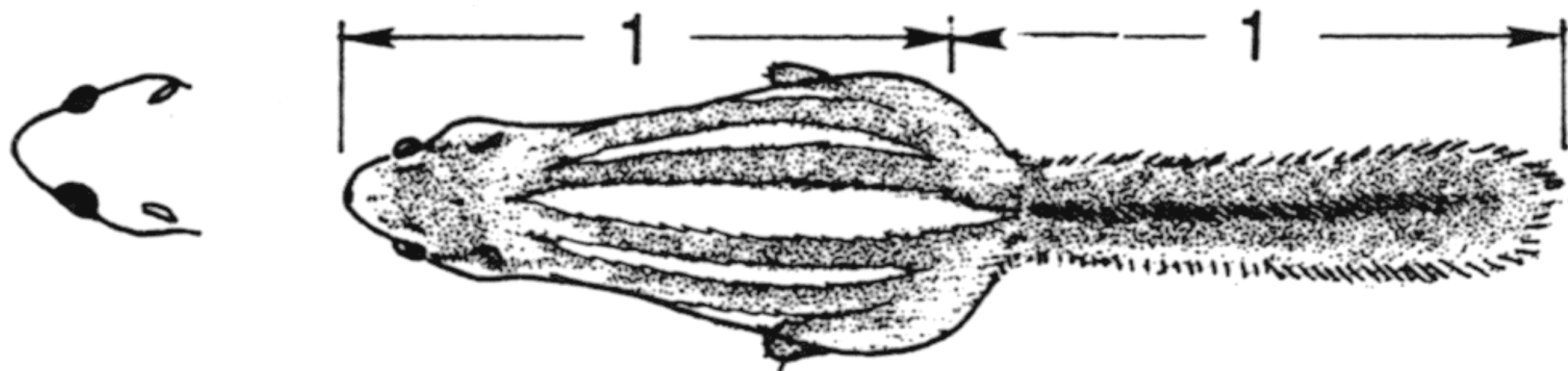
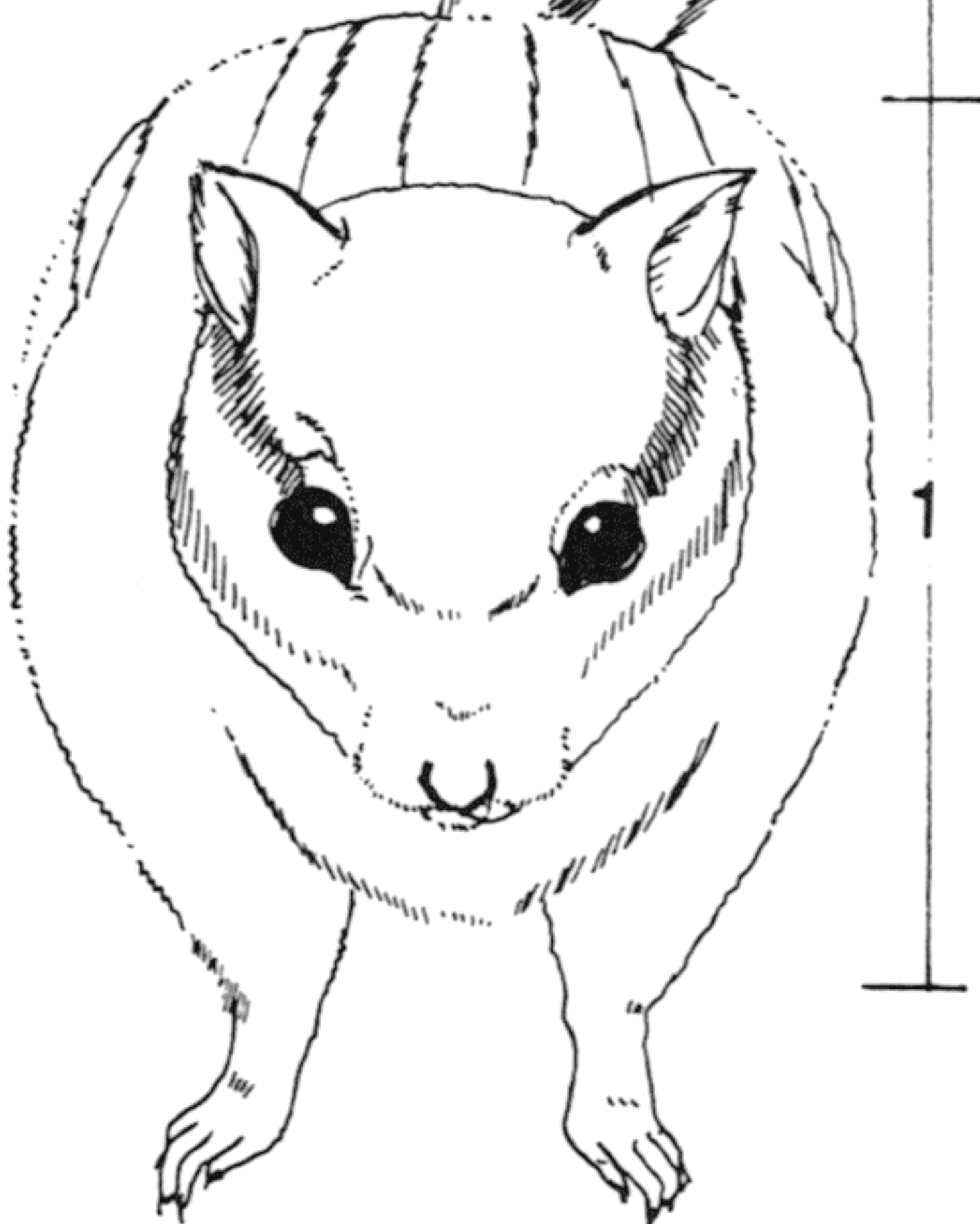
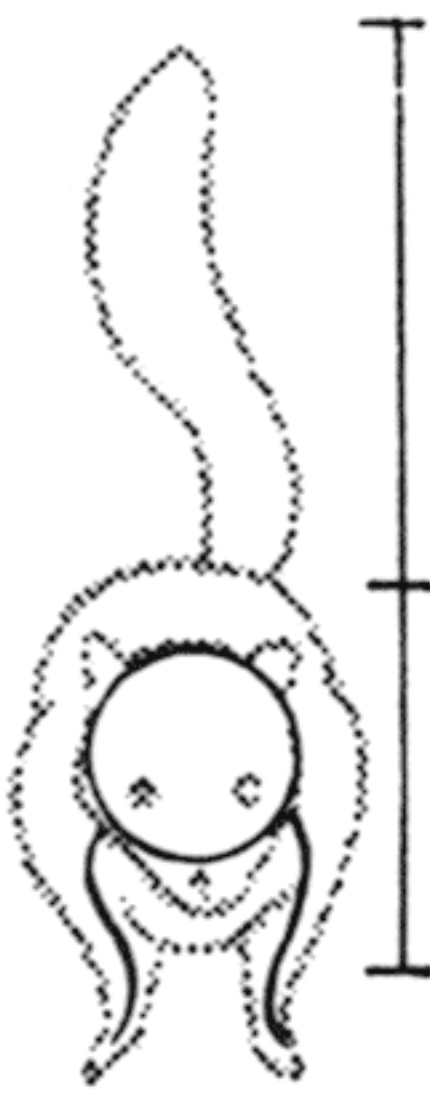
Draw the head on the large side. The key to drawing a chipmunk is to create a 3-shaped curve with hills and valleys running from the neck down the back.

1 1 3 2

The eyes are a distinct almond shape.

The face is a pentagon with the cheeks slightly puffed.

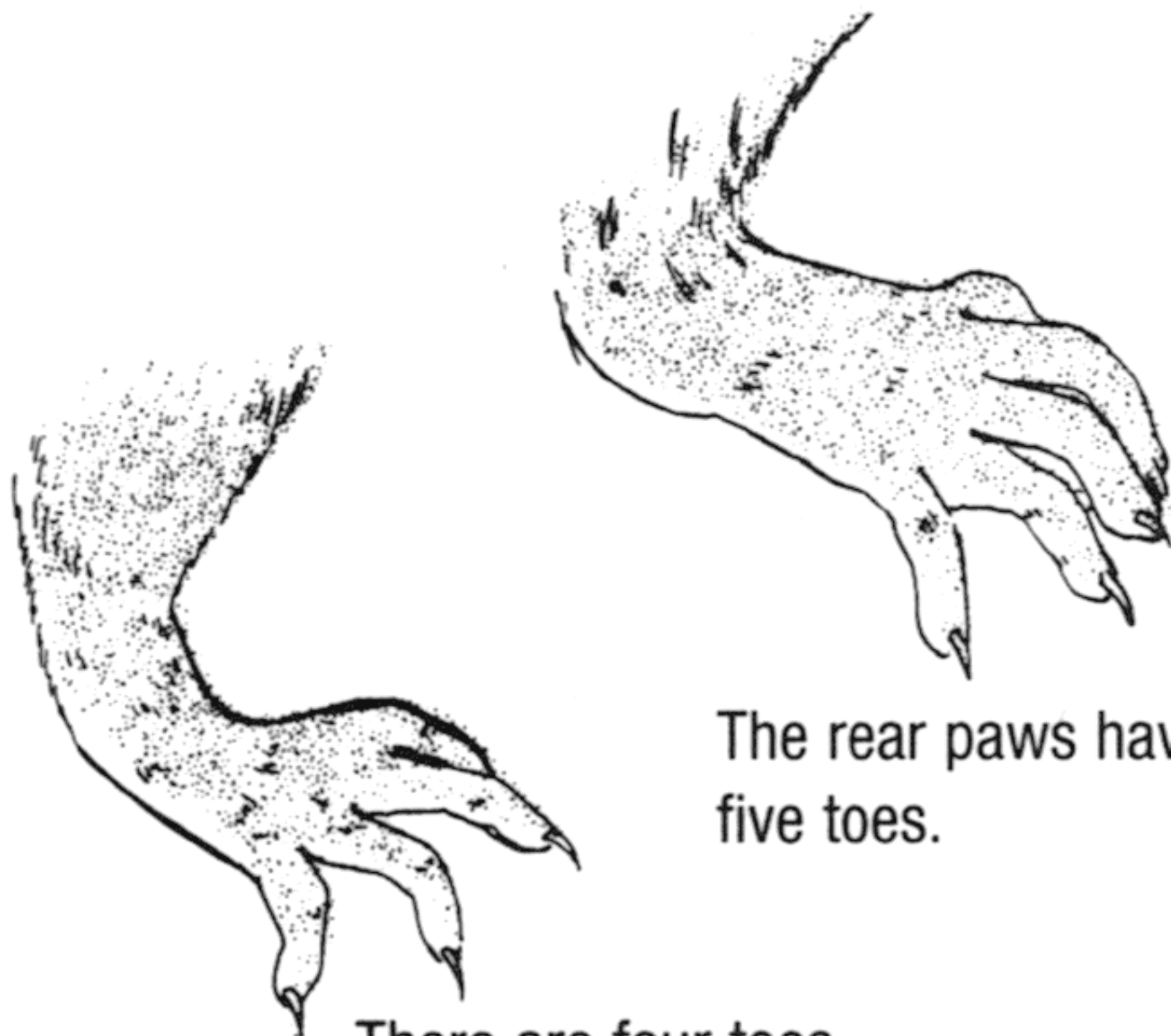
The ears are spaced approximately the same as the eyes.

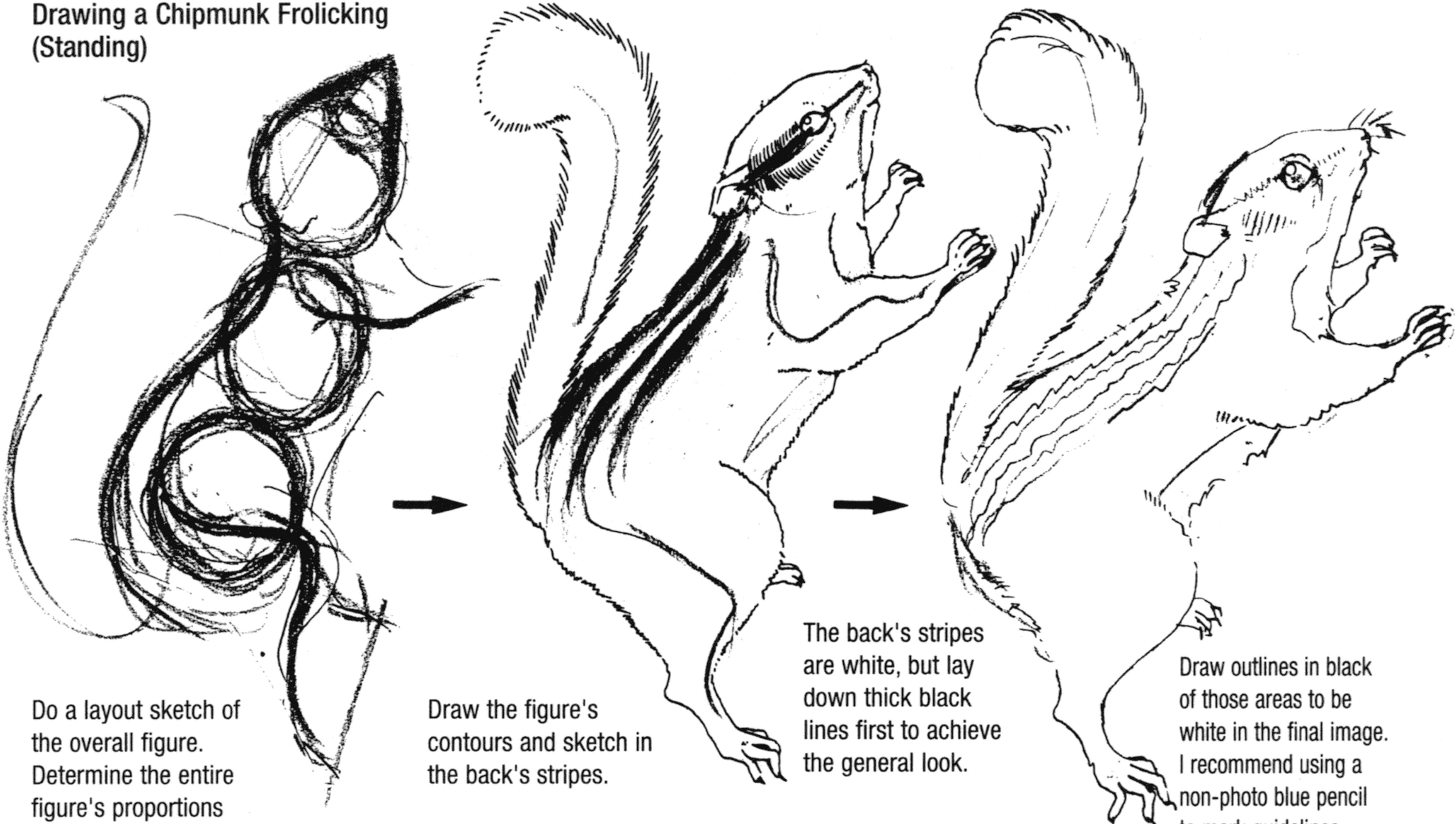
1 1 1 1 1 2 1

The tail when raised straight up is about twice the height of the body.

The tail is approximately the same length as the body.

1 1

The back sports three stripes, while the sides, two (each).

The mouth is narrow underneath the nose.

The chipmunk's head retains its pentagonal shape even from a low angle.

The rear paws have five toes.

There are four toes on the front paws.

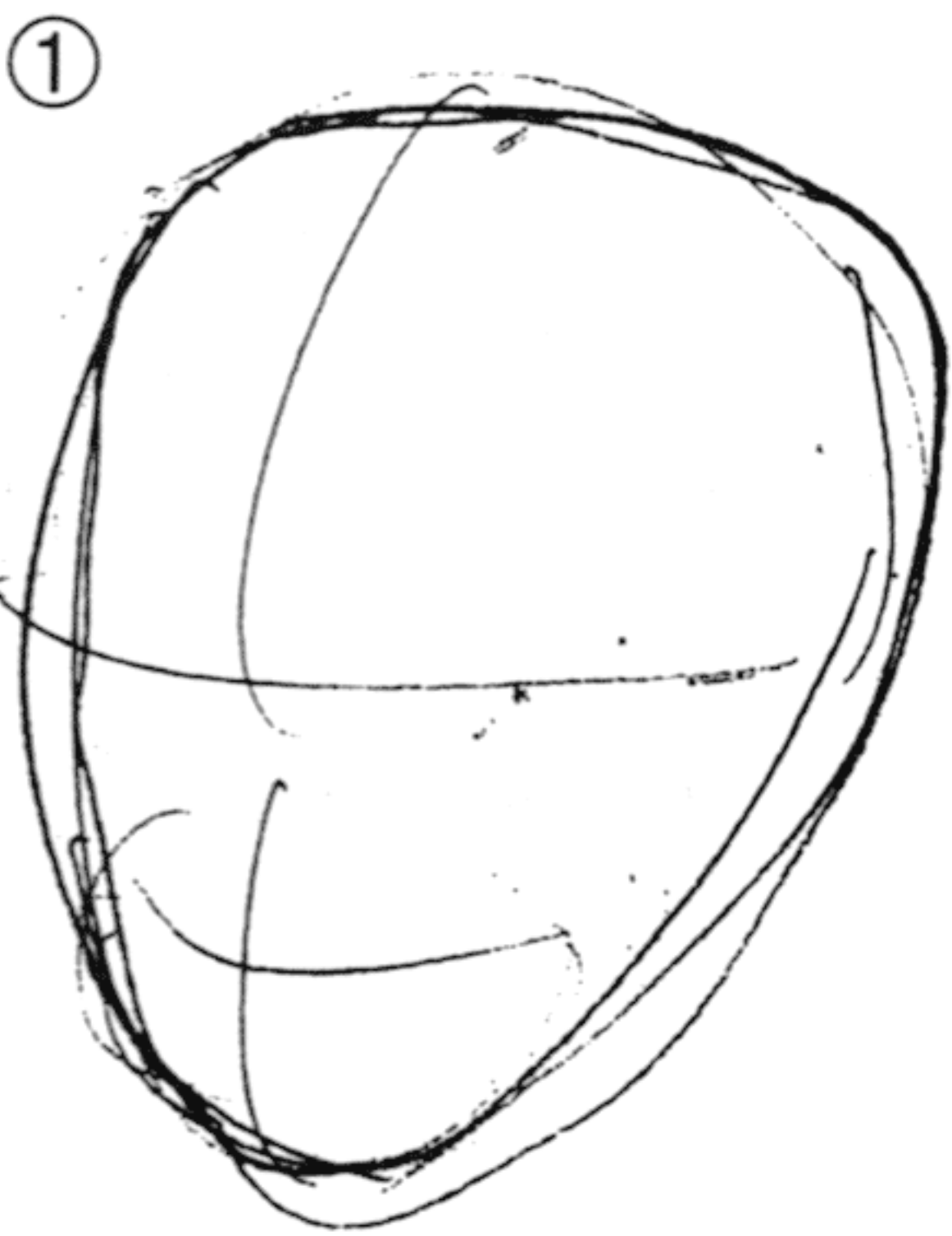
Drawing a Chipmunk Frolicking (Standing)

Do a layout sketch of the overall figure. Determine the entire figure's proportions according to the head's size.

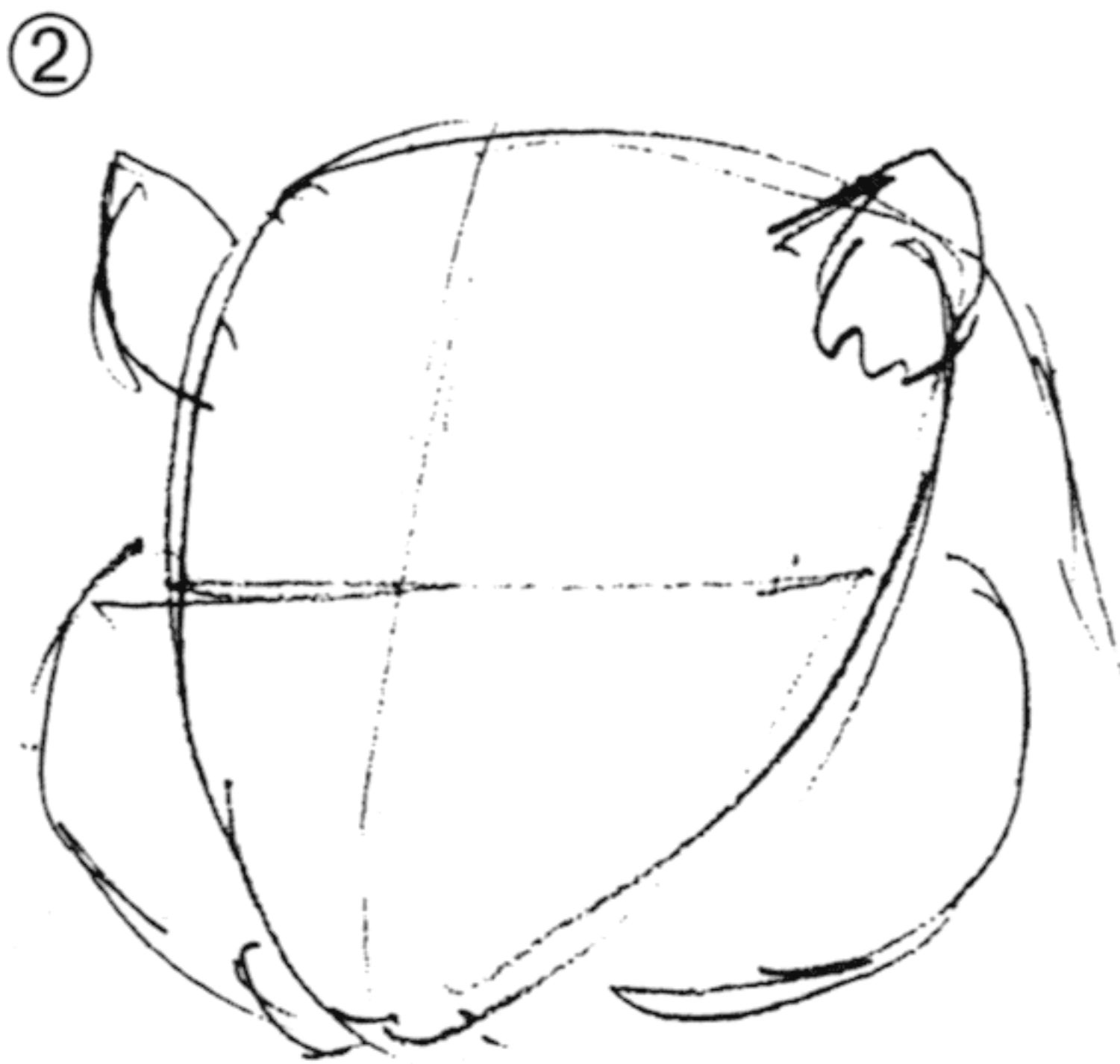
Draw the figure's contours and sketch in the back's stripes.

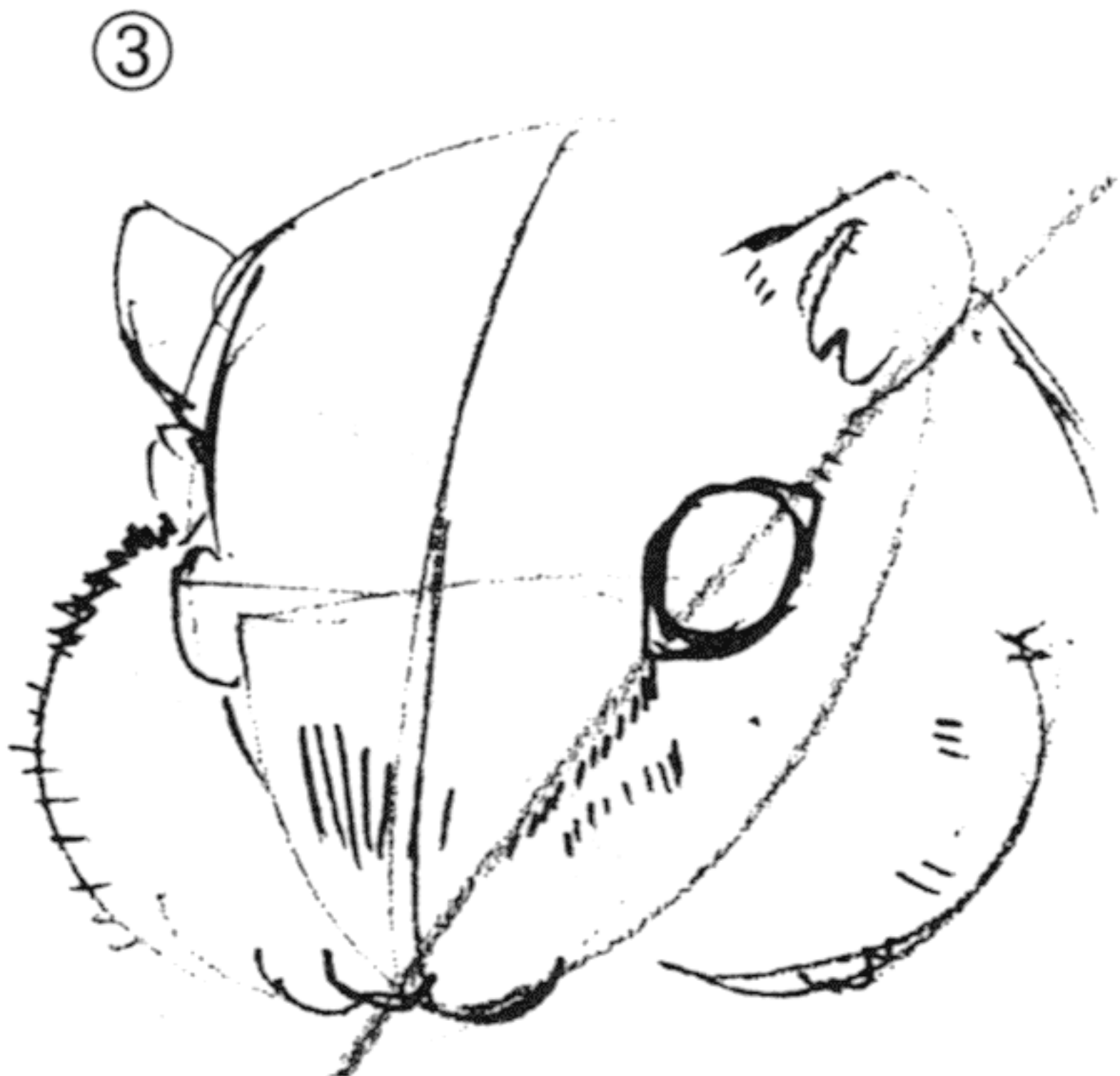
The back's stripes are white, but lay down thick black lines first to achieve the general look.

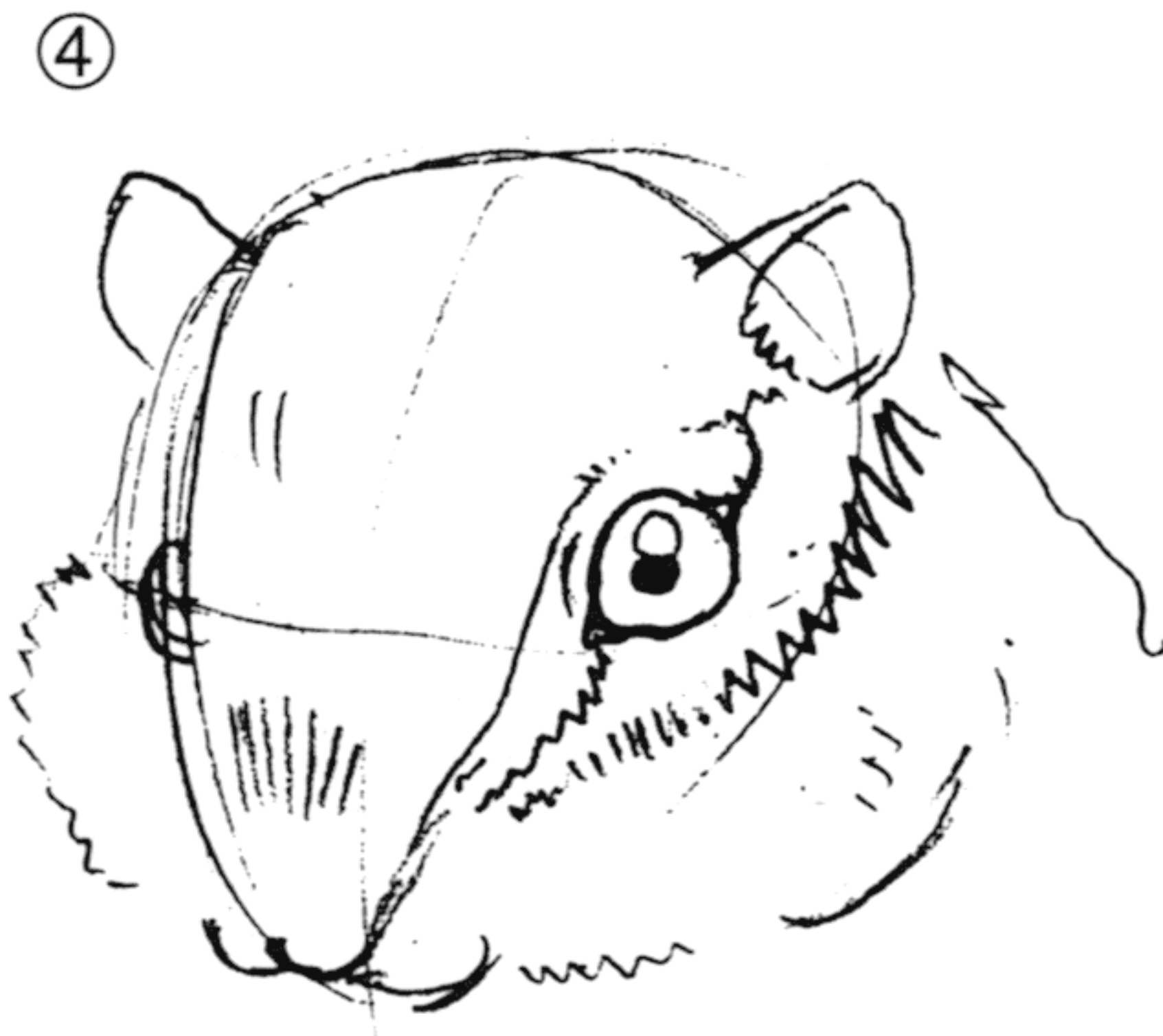
Draw outlines in black of those areas to be white in the final image. I recommend using a non-photo blue pencil to mark guidelines when you are planning on using tone.

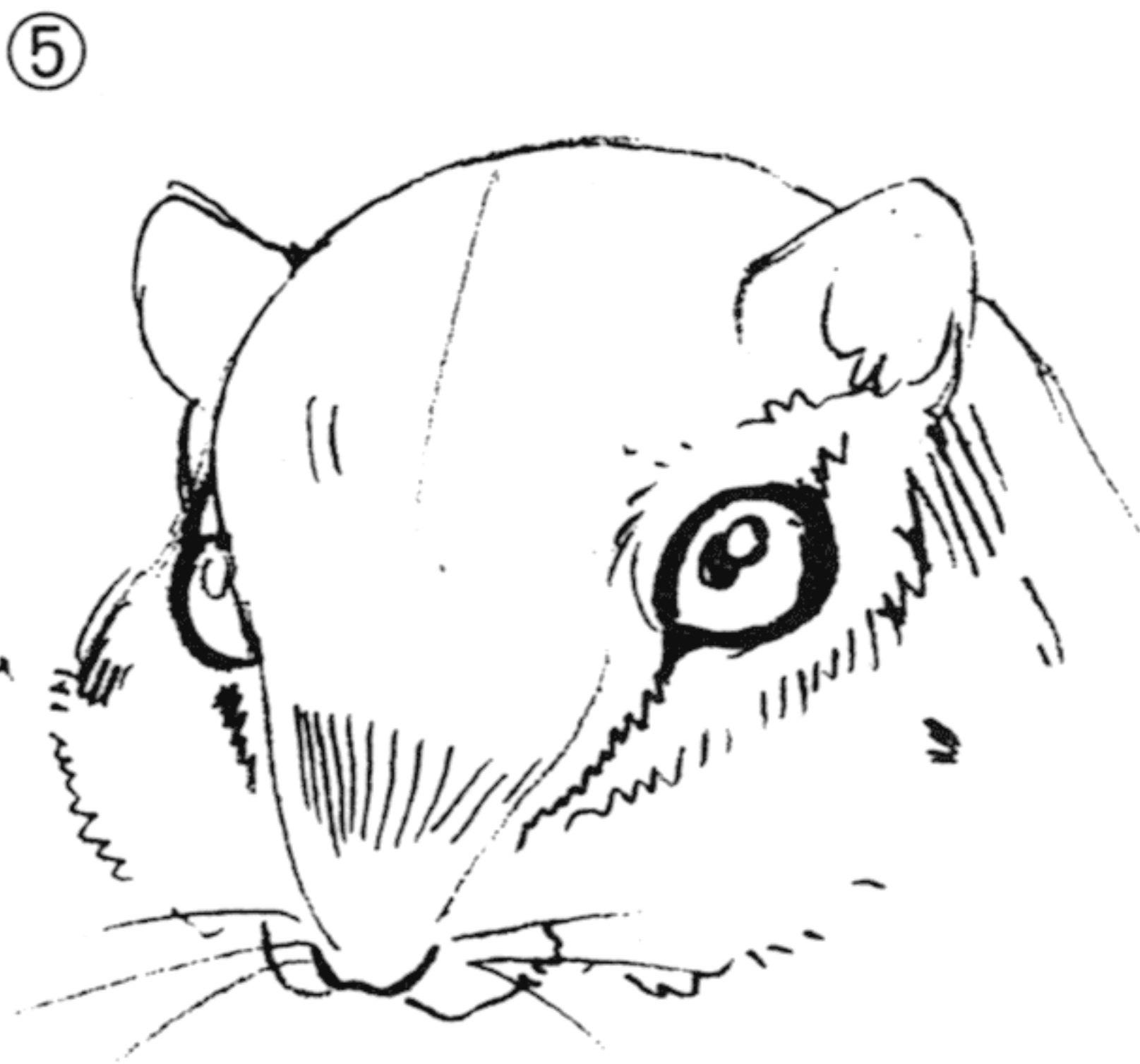
Drawing a Chipmunk with Full Cheek Pouches

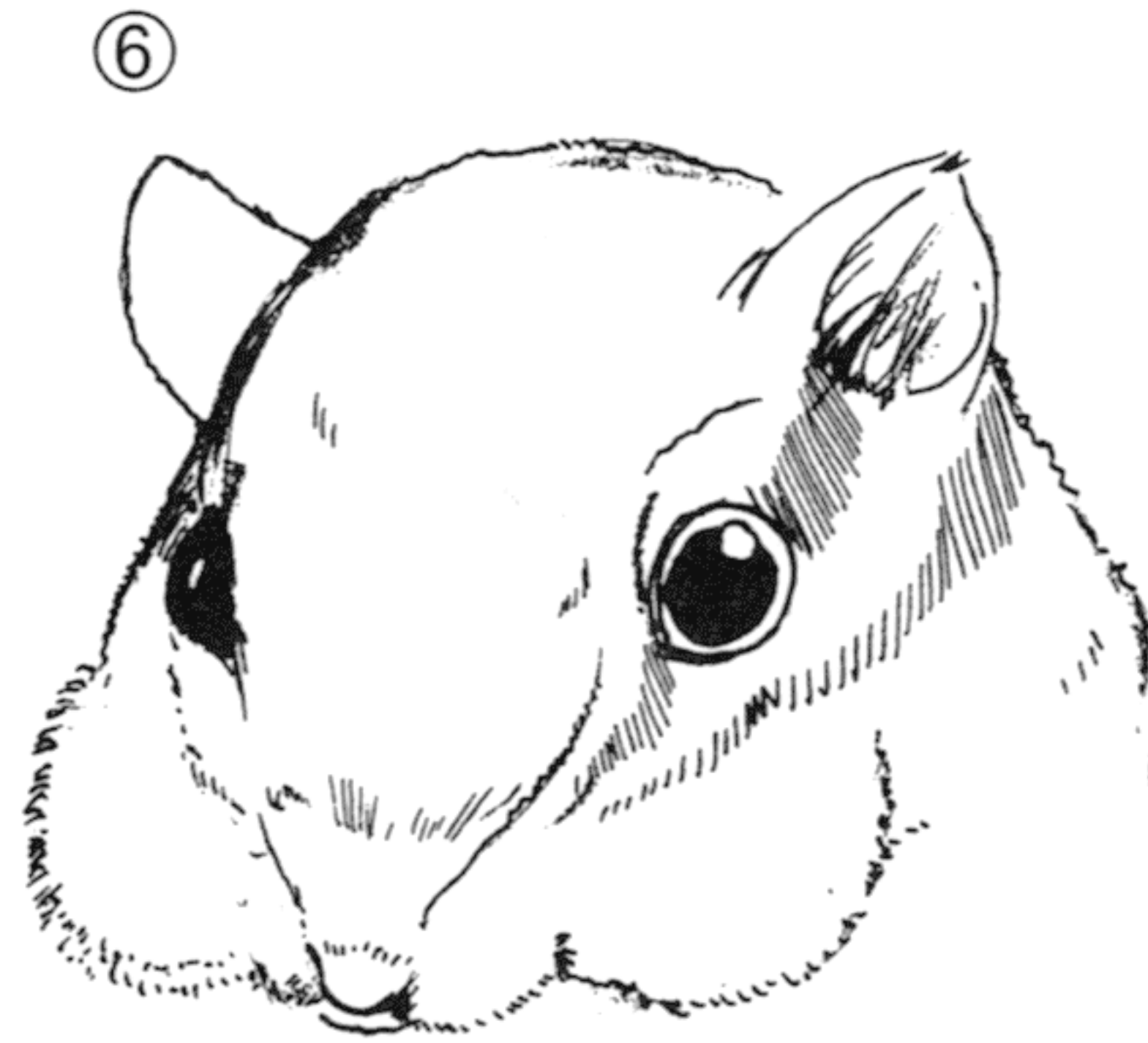
①

Draw an upside-down triangle.

②

Draw the ears and semicircles for the cheek pouches.

③

Draw the eyes along a line connecting the nose to the base of the ears. The mouth should form a "W", while the nose forms a "U".

④

Use zigzagging lines for the cheeks' contours to make them appear fuzzy.

⑤

Add whiskers to the sides of the nose. You may omit these in the final image.

⑥

Complete the silhouette and the details and blacken the eyes to finish.

Be sure to alternate white stripes with dark brown stripes.

Cheek pouches

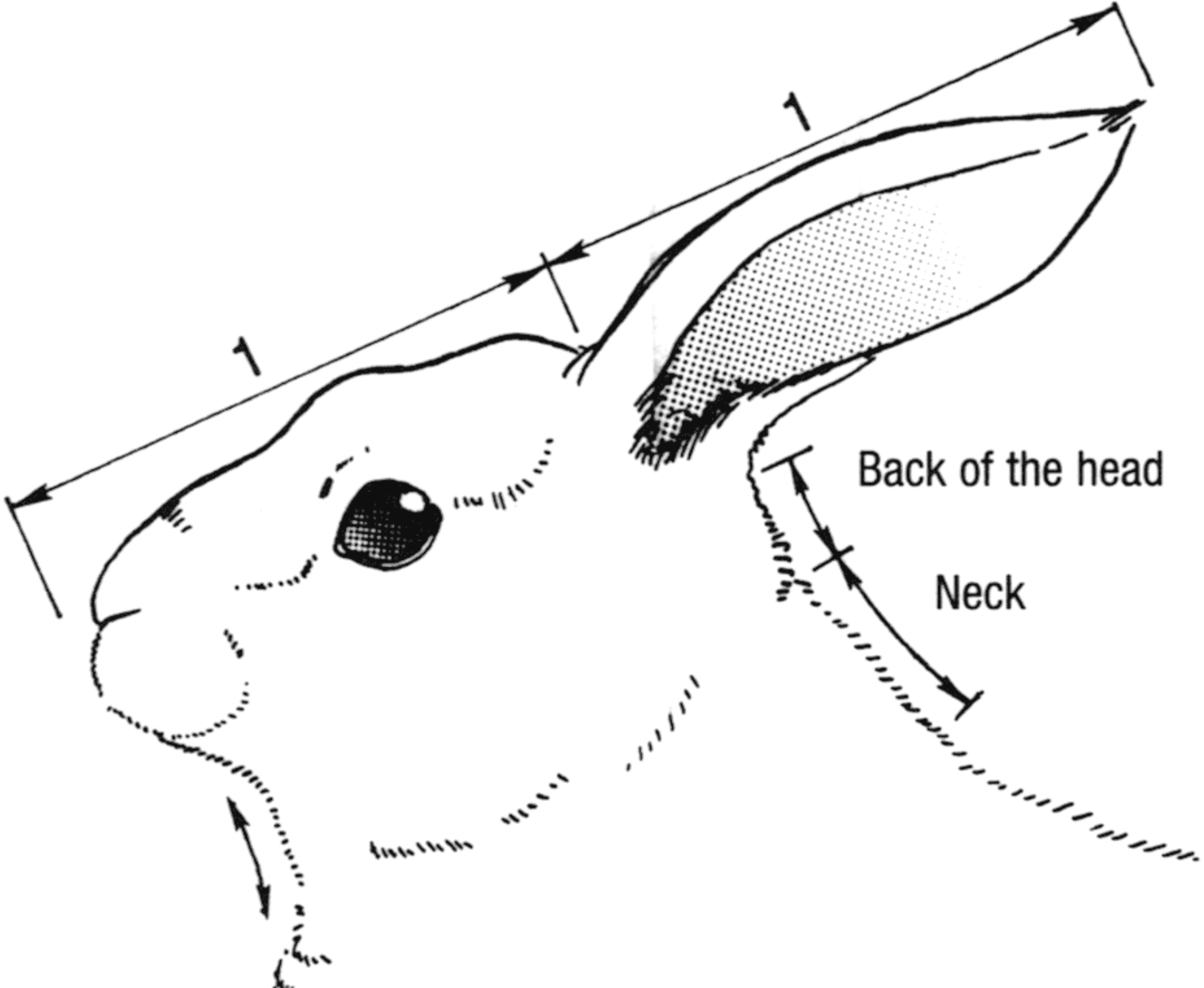
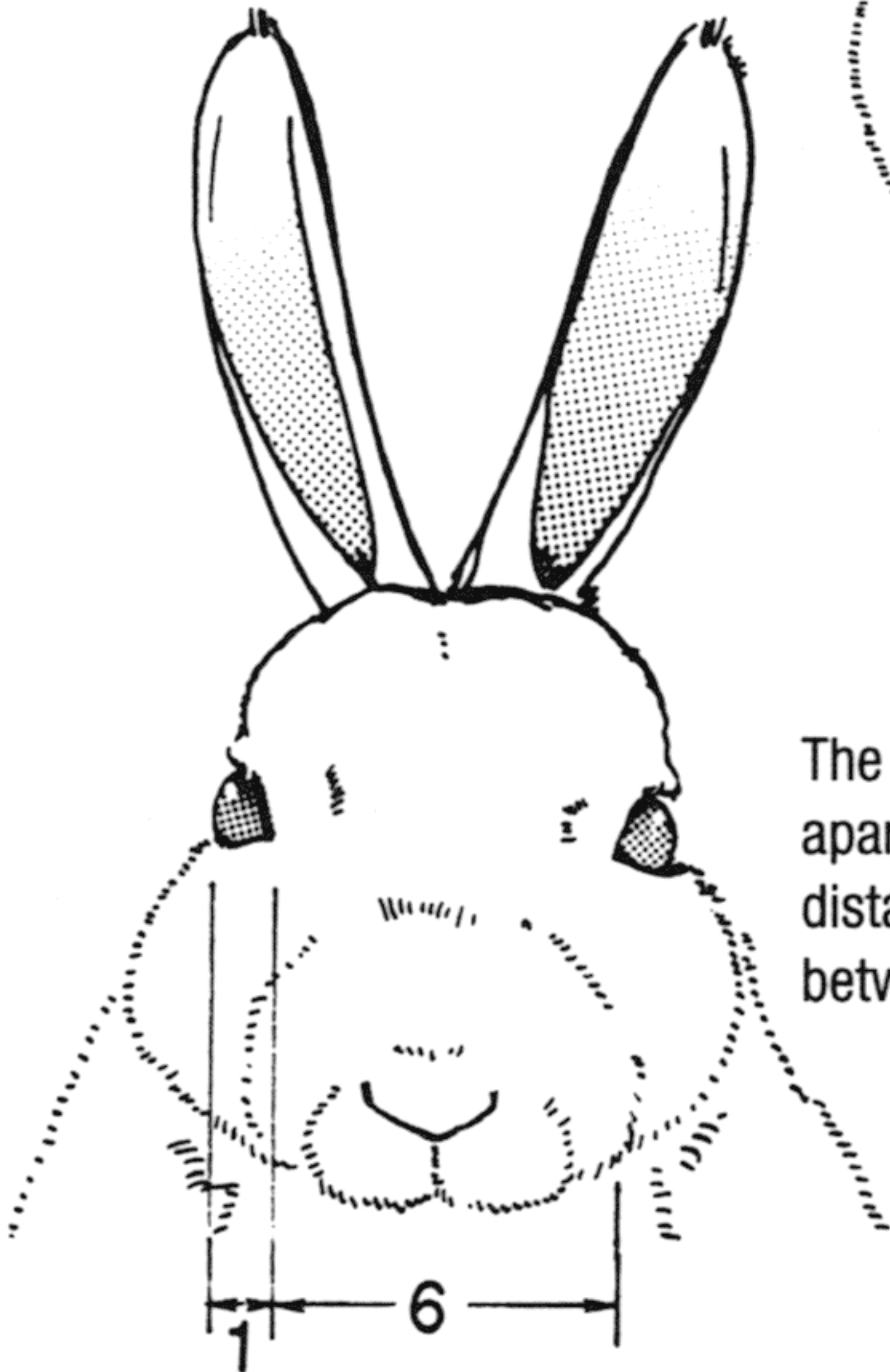
Rabbits

This is a full-cheeked, trapezoidal head with the ears about as tall as the head.

1

1

Back of the head

Neck

The throat is short.

Nose and mouth

The eyes are spaced far apart with the equivalent distance of size eyes between them.

1

6

1

2

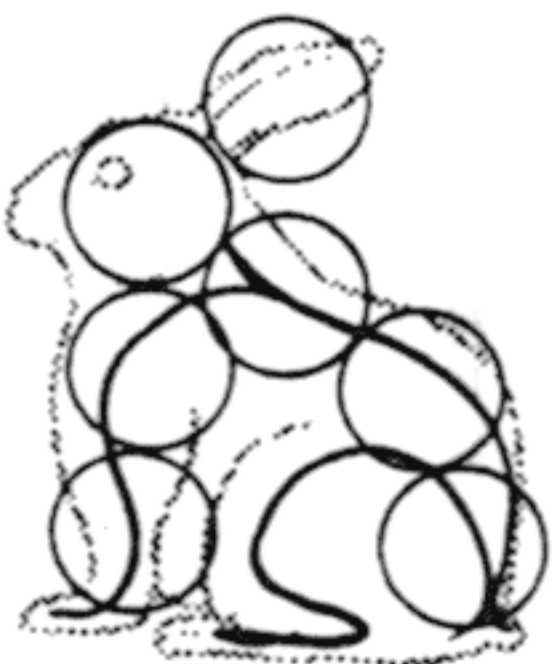
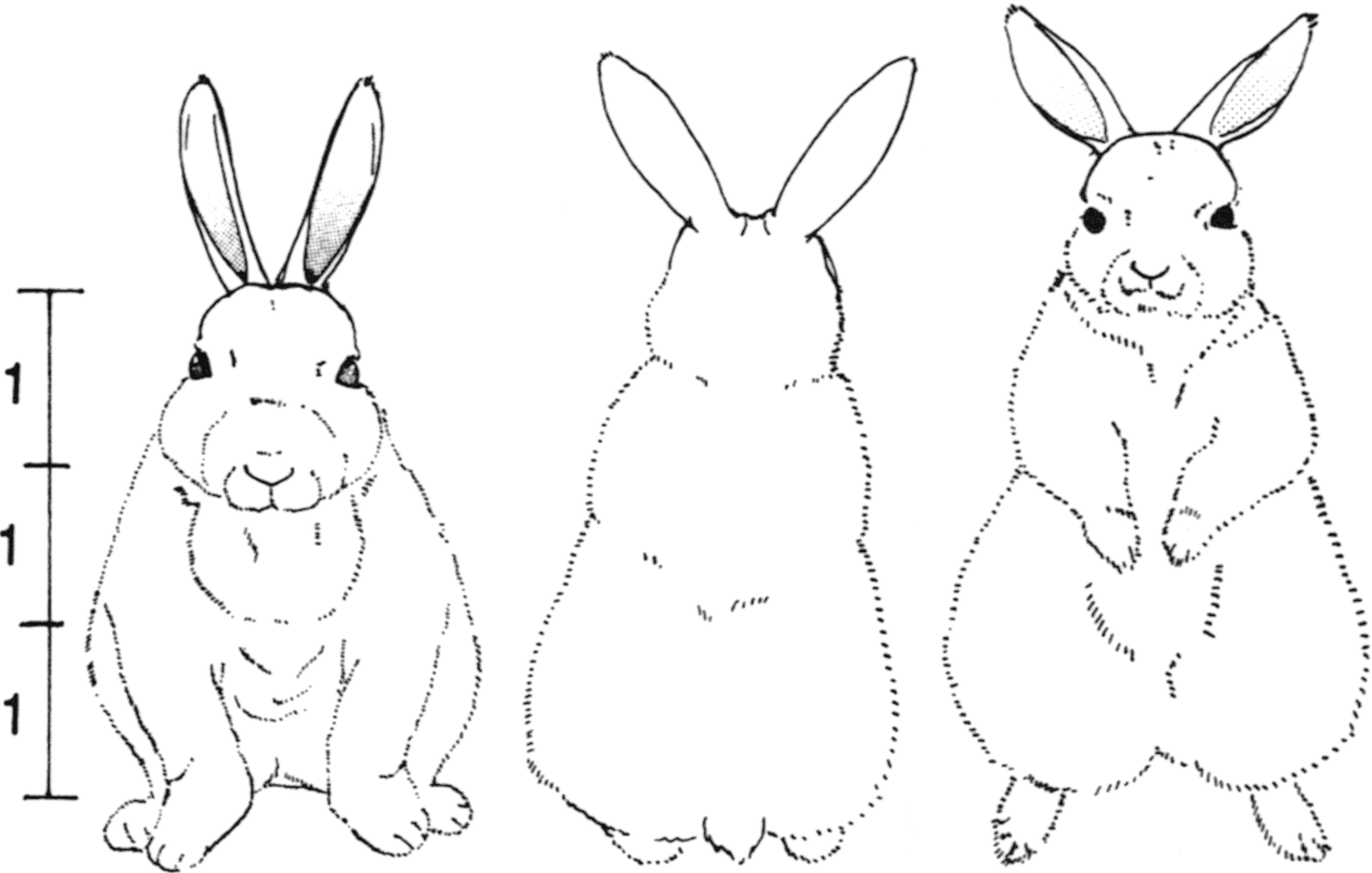
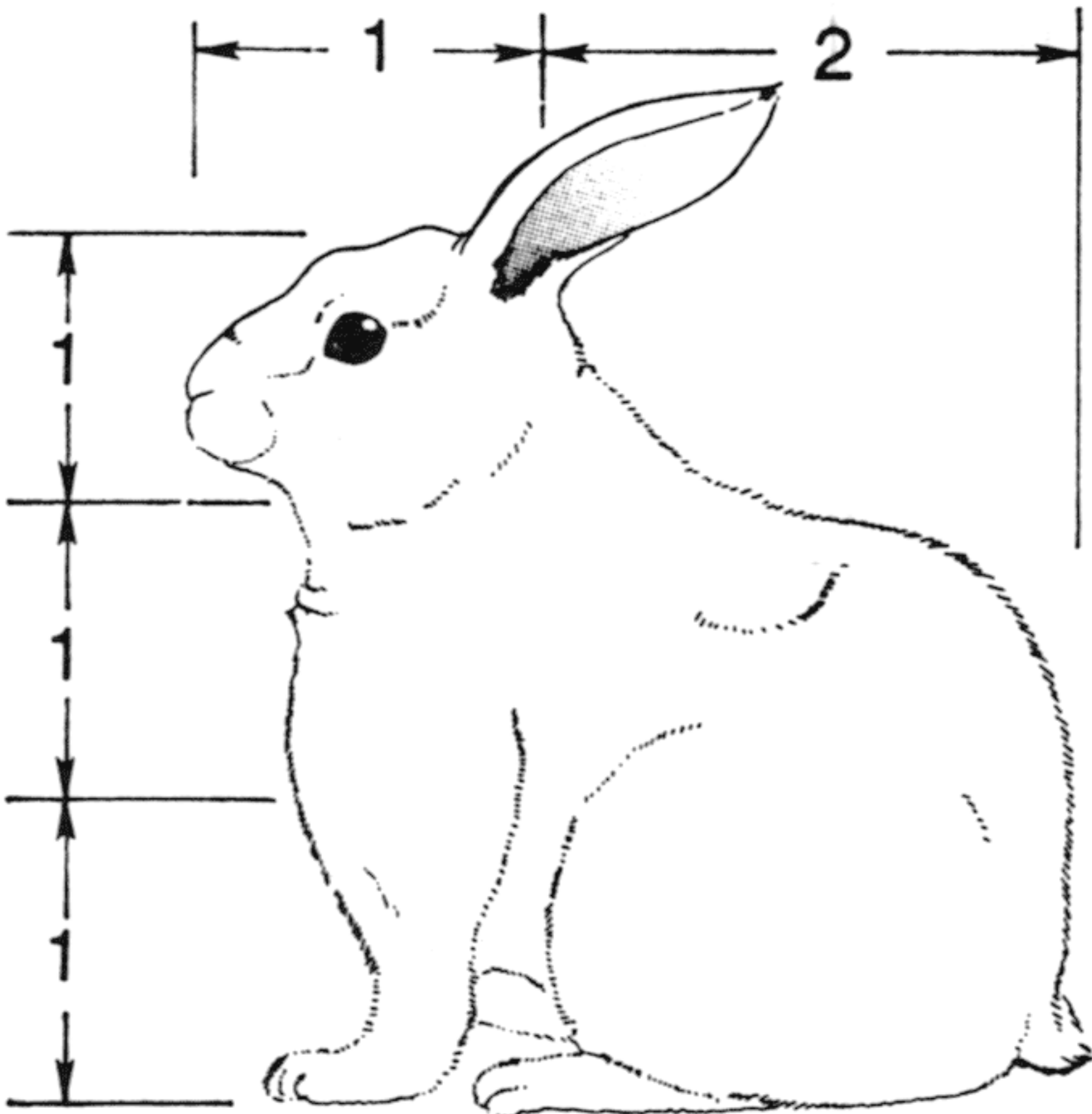
1

1

1

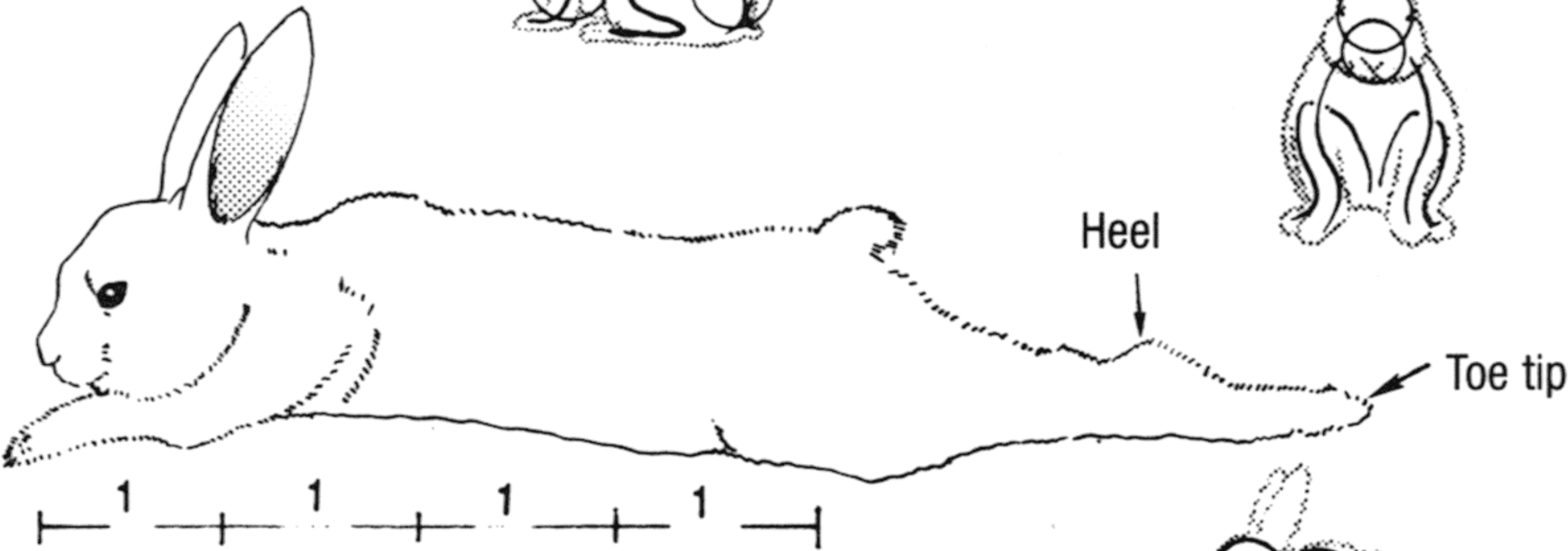
1

1

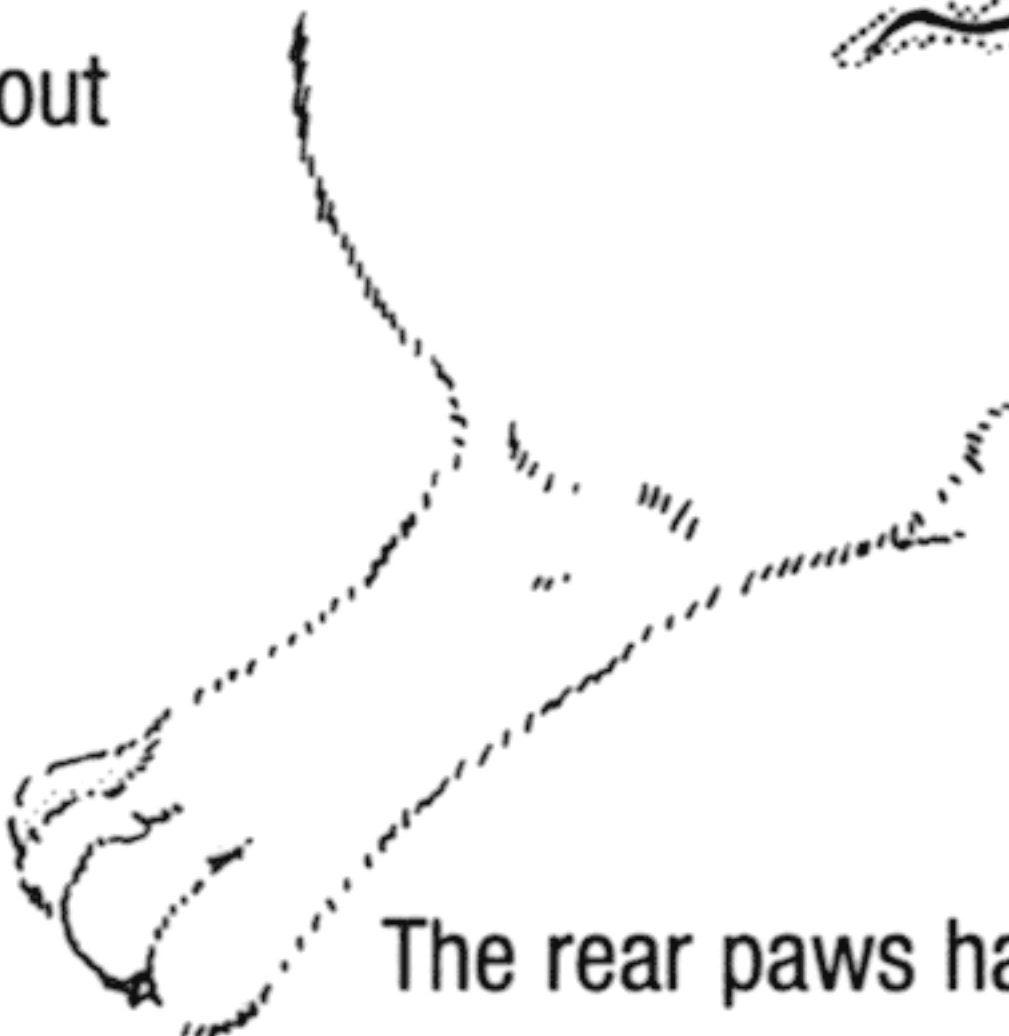
1

The hind legs occupy about 2/3 of the body.

Heel

Toe tip

1 1 1 1

Stretched out, the body is about four heads in length, while the legs are about three heads long.

The feet should be about the same length as the ears.

The five front toes are barely discernible.

The rear paws have four toes each.

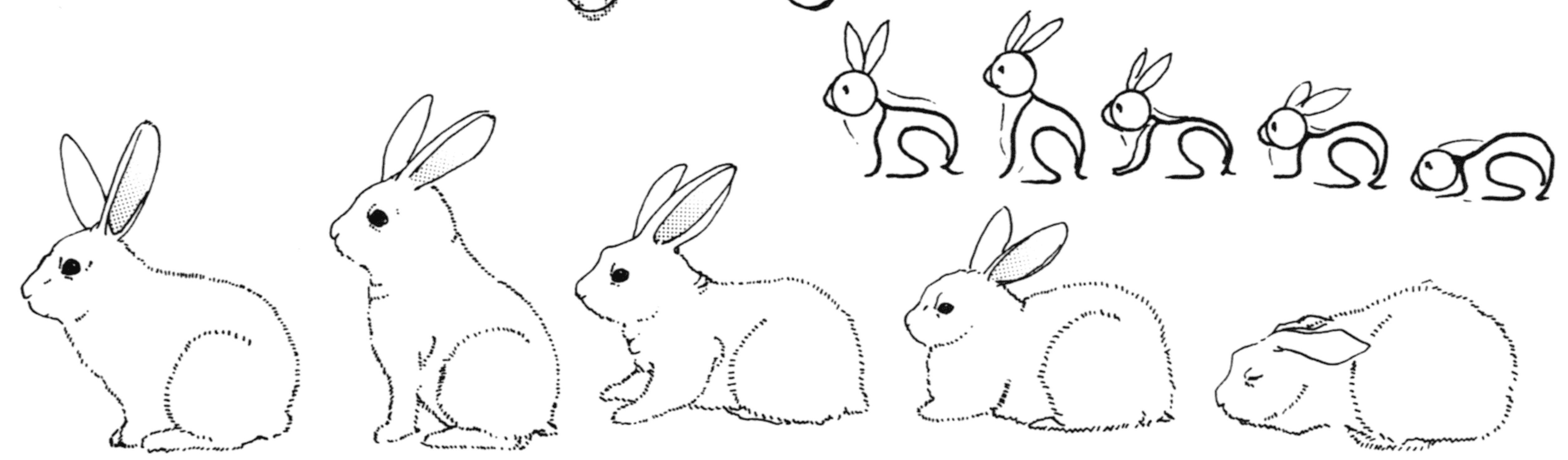
①

②

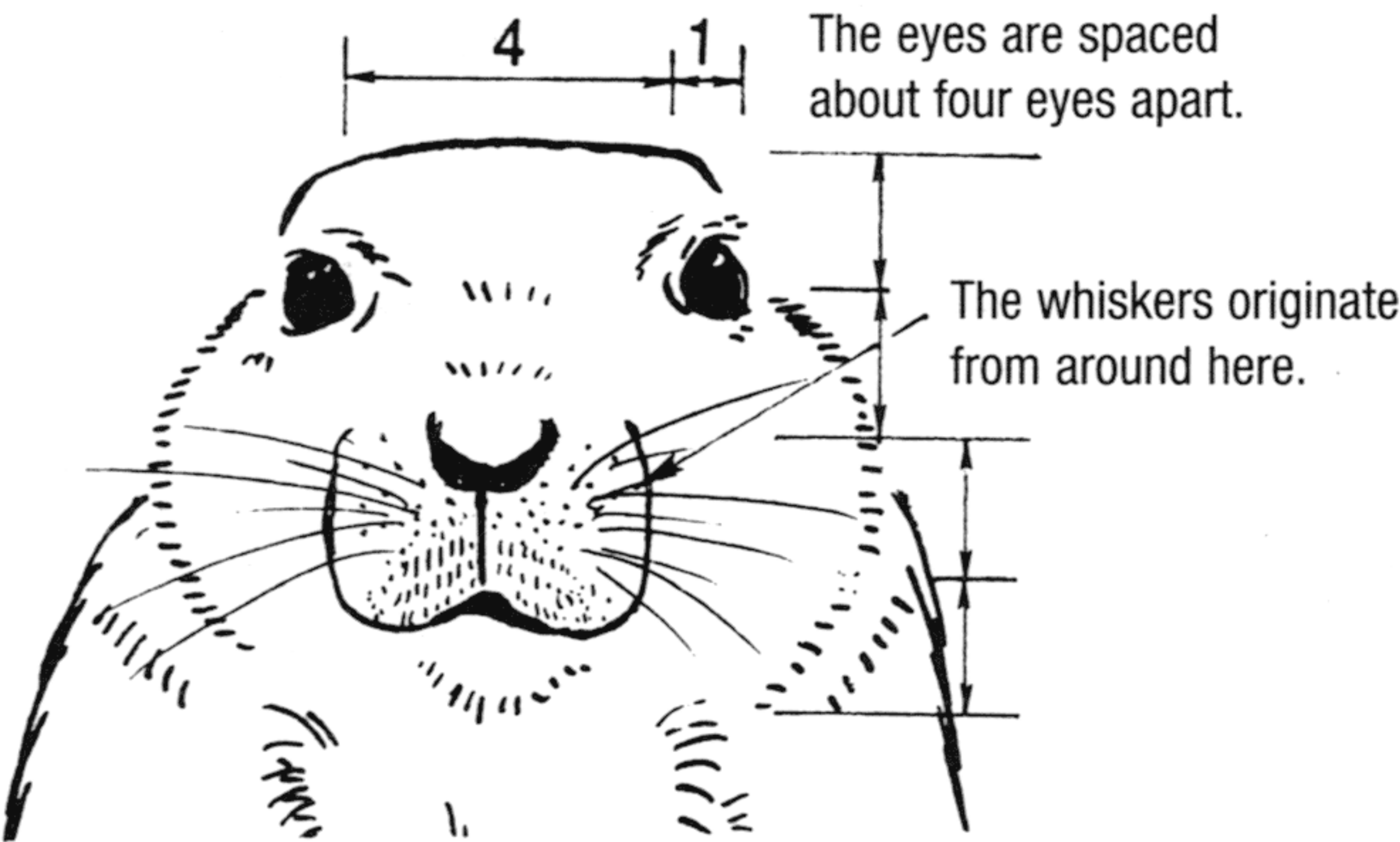
③

④

⑤

Sitting

Prairie Dogs

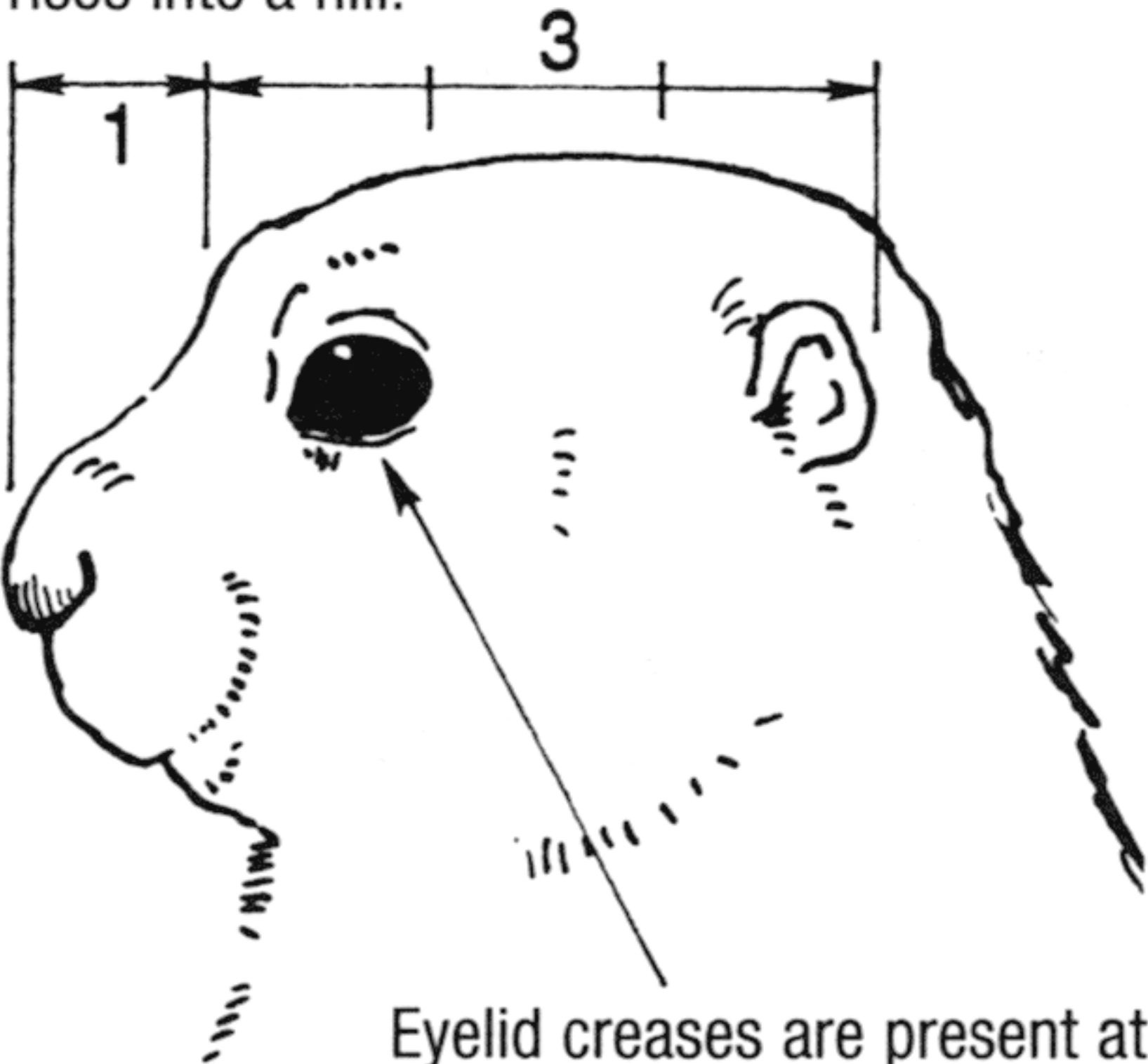
The top of the head is a curve so subtle it is almost flat. The ears attach toward the rear of the head. Draw the head on the large side and the limbs thick, crafting an overall stocky, roly-poly figure.

4 1

The eyes are spaced about four eyes apart.

The whiskers originate from around here.

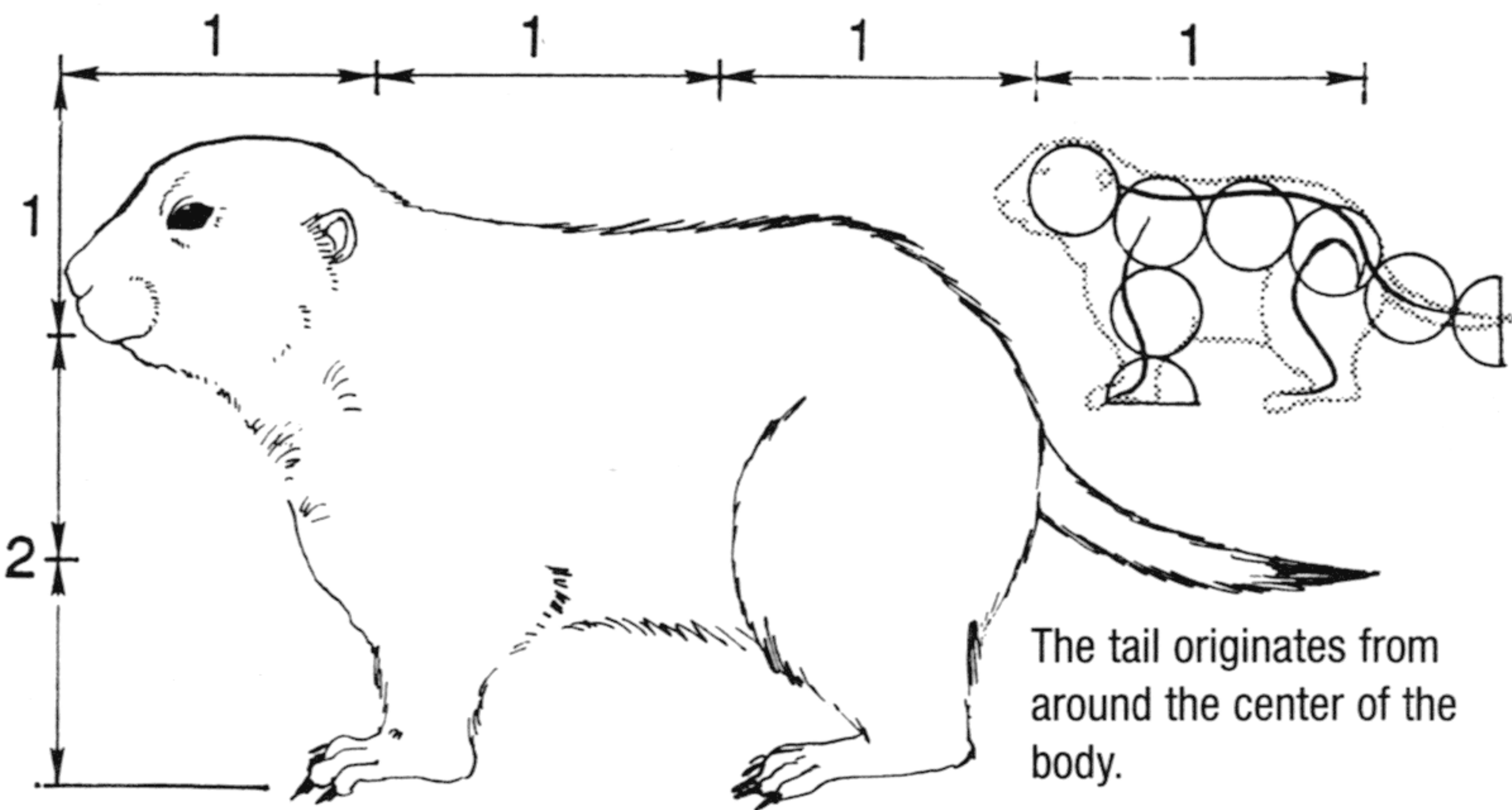
The ears are not visible from a straight-on front view.

The brow above the eyelid rises into a hill.

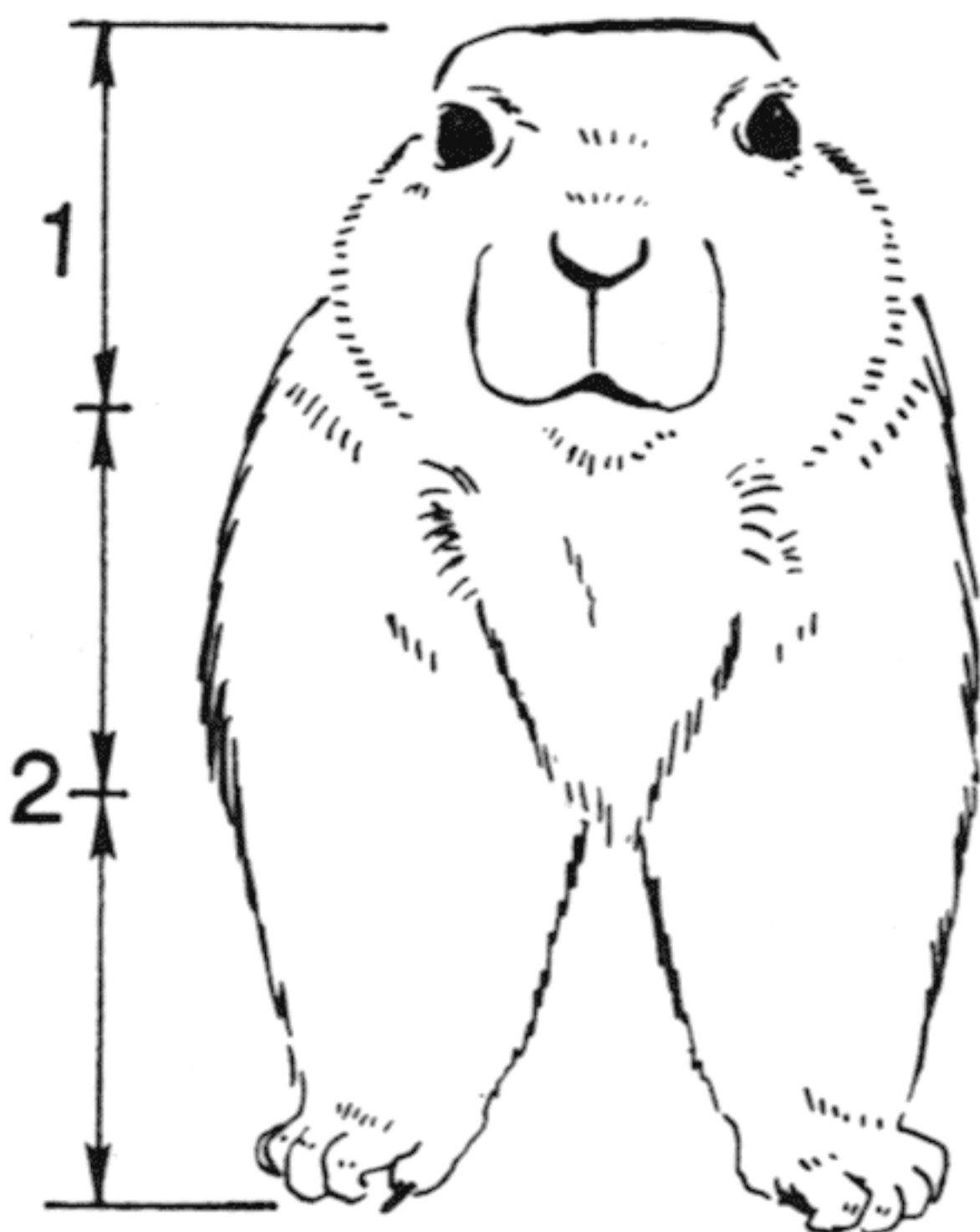
1 3

Eyelid creases are present at both the upper and lower eyelids.

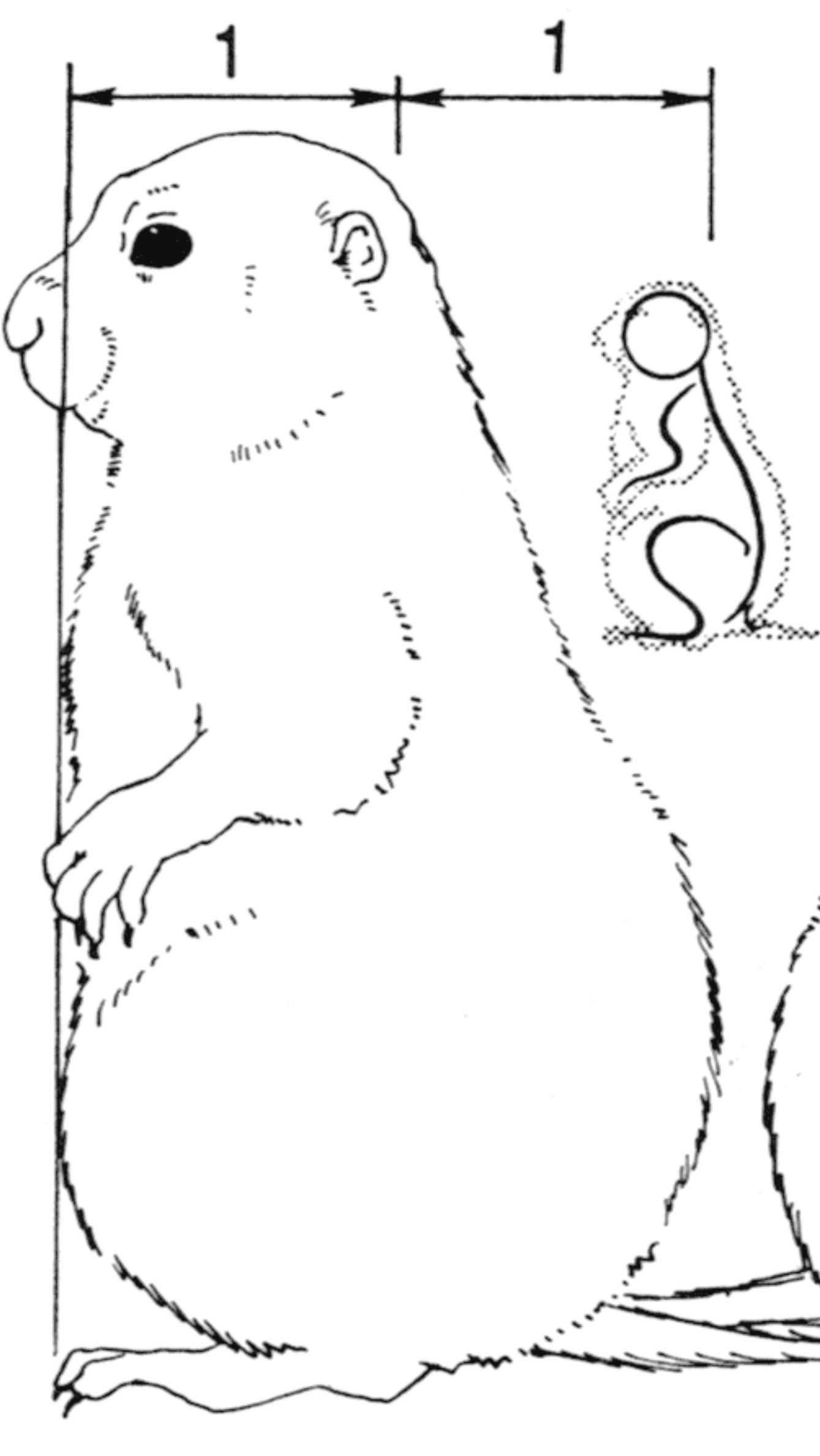
1 1 1 1

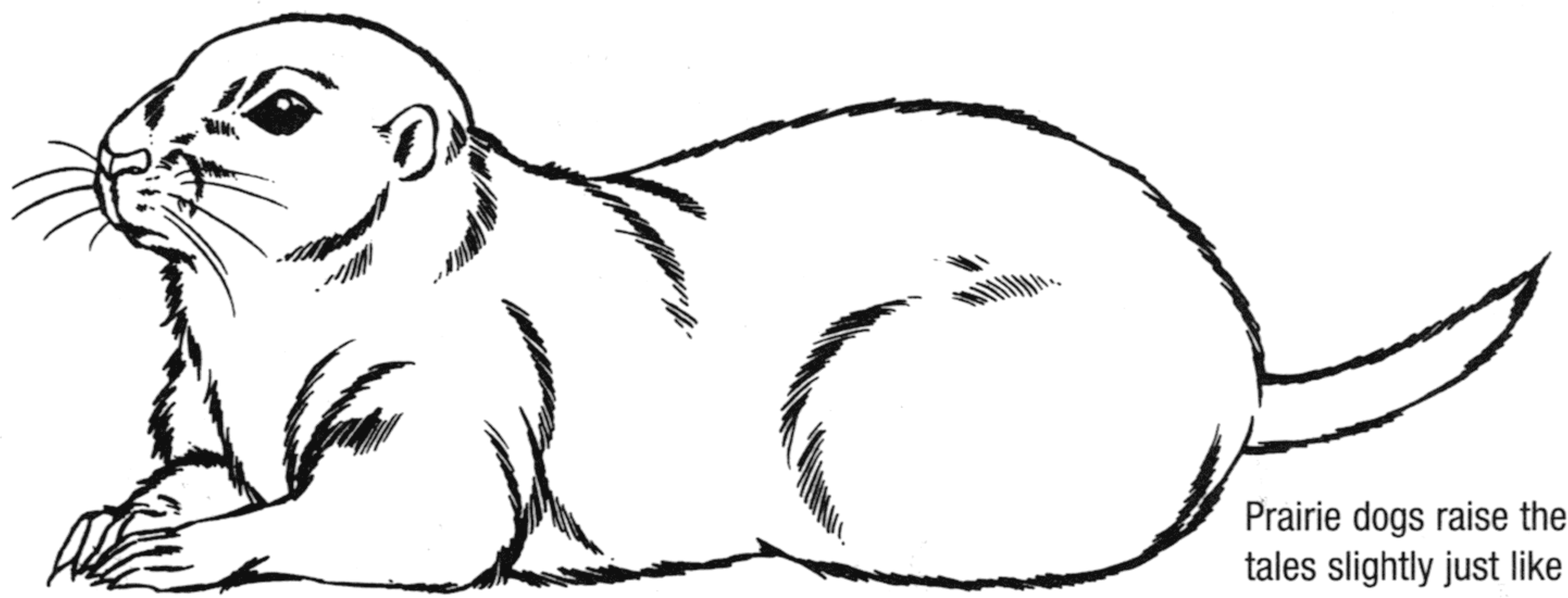
1

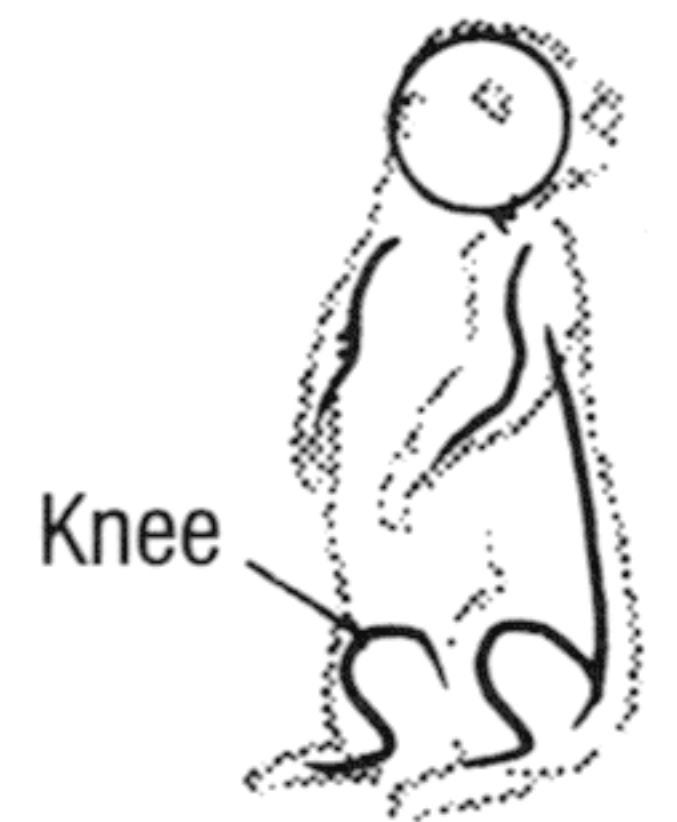
2

The tail originates from around the center of the body.

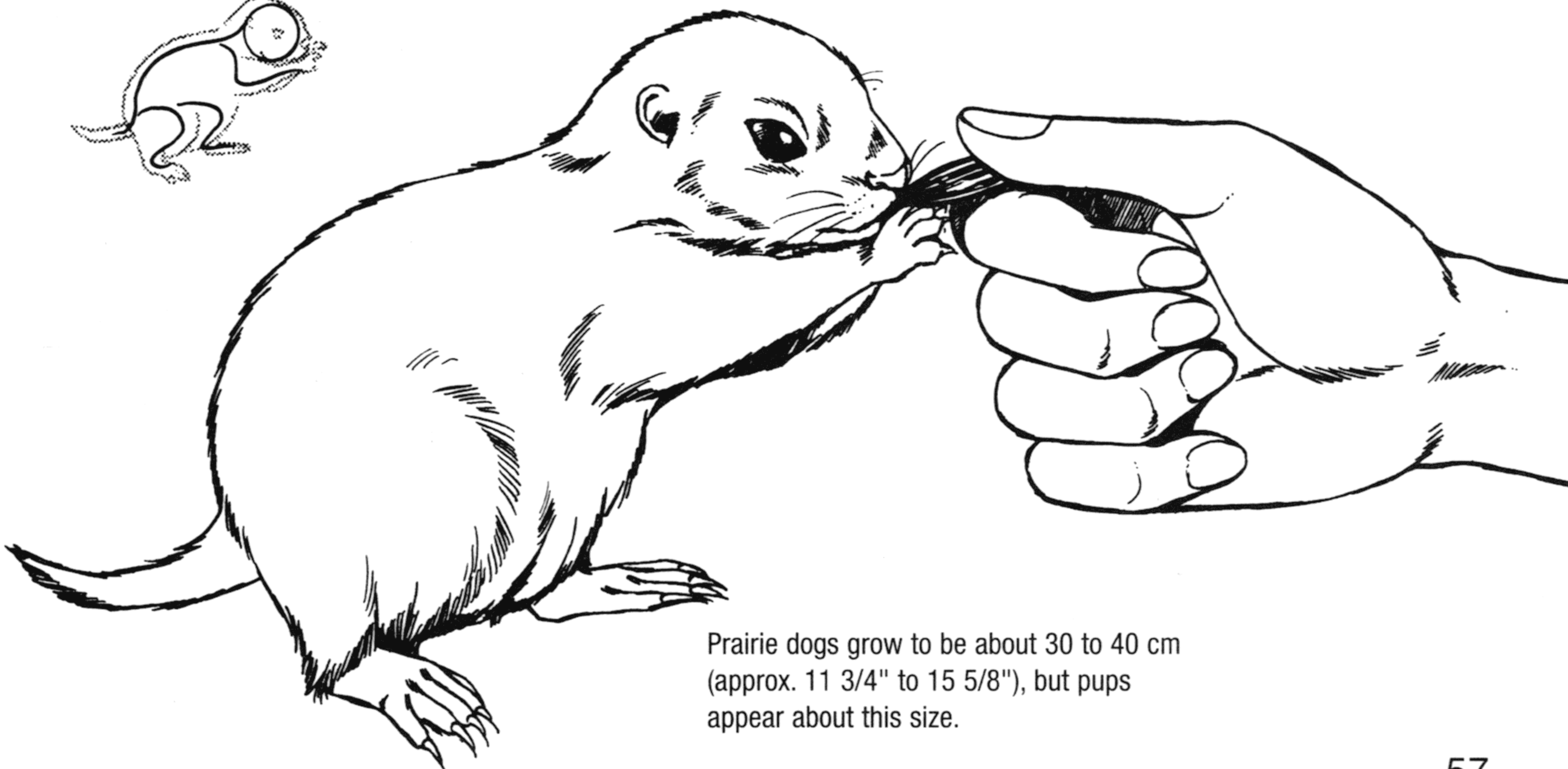
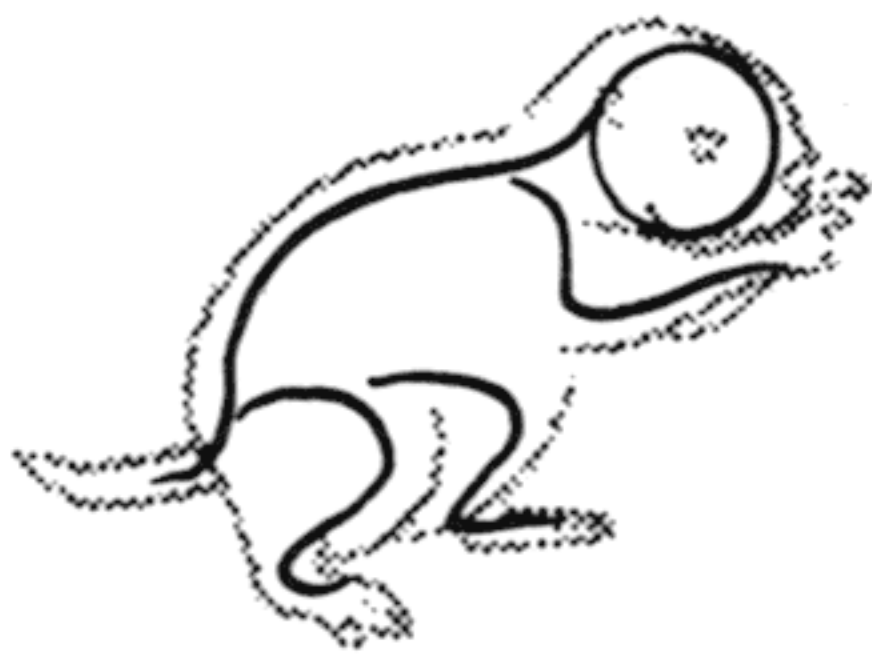
1

2

The forelegs are astoundingly thickset.

1 1

The snout extends further out than the toes.

The paws have five toes, each sporting a long, black claw.

Prairie dogs raise their tales slightly just like a dog.

From this moderately high angle, the legs do not play a prominent role in the profile, presenting a straight-up-and-down figure.

Knee

The knees are not very prominent.

Prairie dogs grow to be about 30 to 40 cm (approx. 11 3/4" to 15 5/8"), but pups appear about this size.

Meerkats

The distinguishing features for this animal are its flat head and pointed snout. The hair surrounding the ears and eyes is black, making the meerkat appear from far away to be wearing a black mask.

The ears are attached toward the back of the head and are black.

1
1
1

The lower jaw recedes significantly from the tip of the nose.

The forehead occupies about 1/3 of the head.

1
1
1

Large differences exist from individual to individual in the black surrounding the eyes, and some have faces that are black from the tip of the nose to the chin.

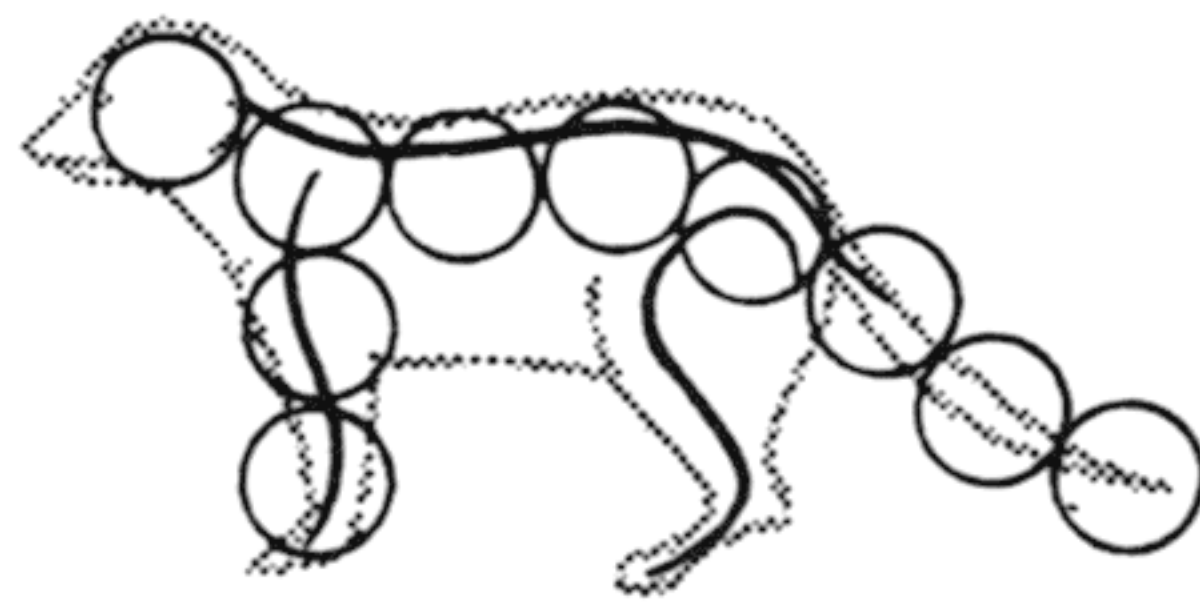
The abstracted contour lines make the head appear almost like a bird's.

From underneath, the chin appears to be that of a fox.

1
1
1
1

The stripes along the back are dark brown.

The tail becomes increasingly dark toward the tip.

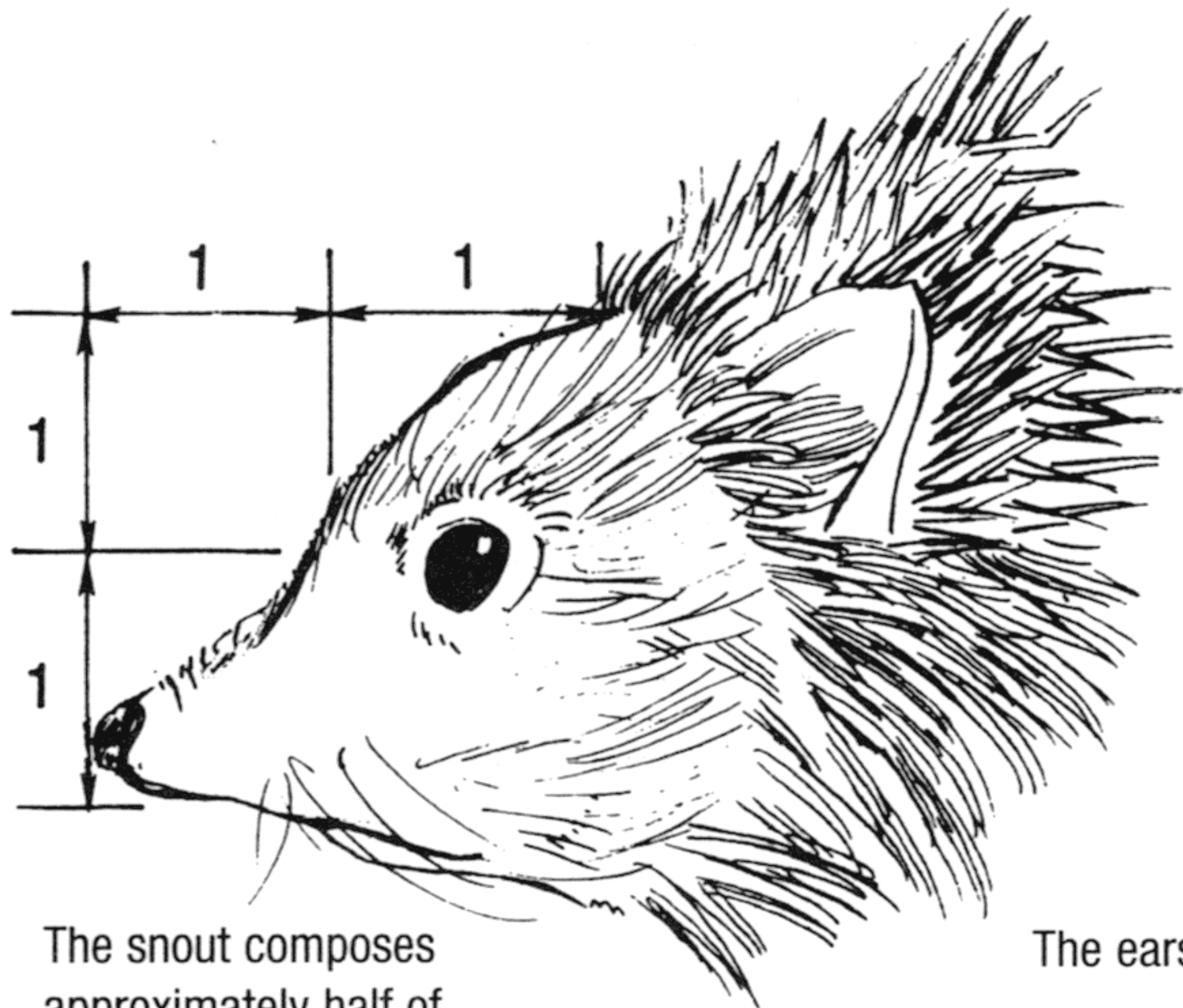
The claws are long and black.

Hedgehogs

Draw the hedgehog as if depicting a pointy-nosed rat wearing a carapace of needles on its back.

Thick fur strands (needles)

1 1

1

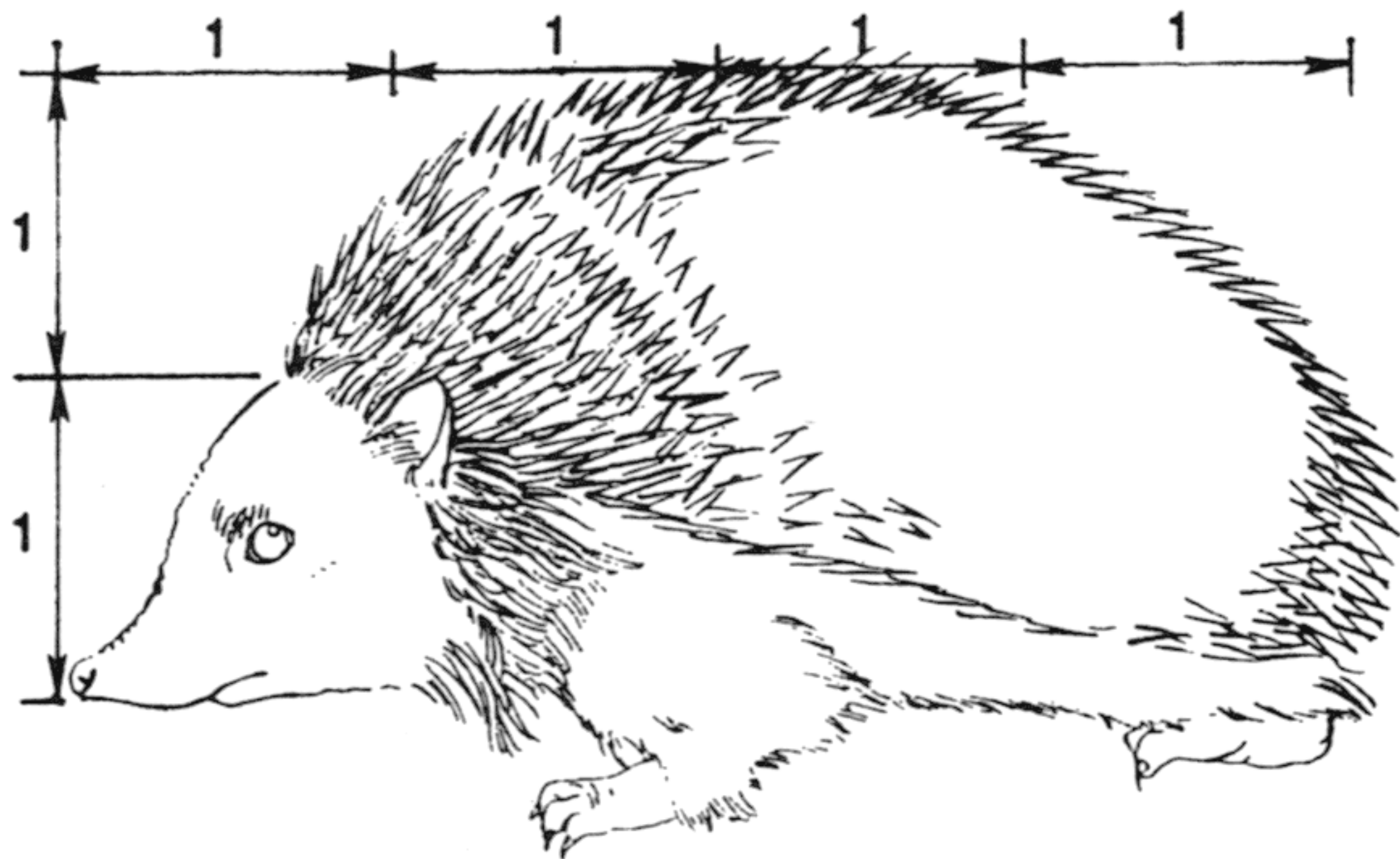
1

The snout composes approximately half of the face.

The ears' interiors are black.

These fine strands originate just above the eye and grow straight back.

1 1 1 1

1

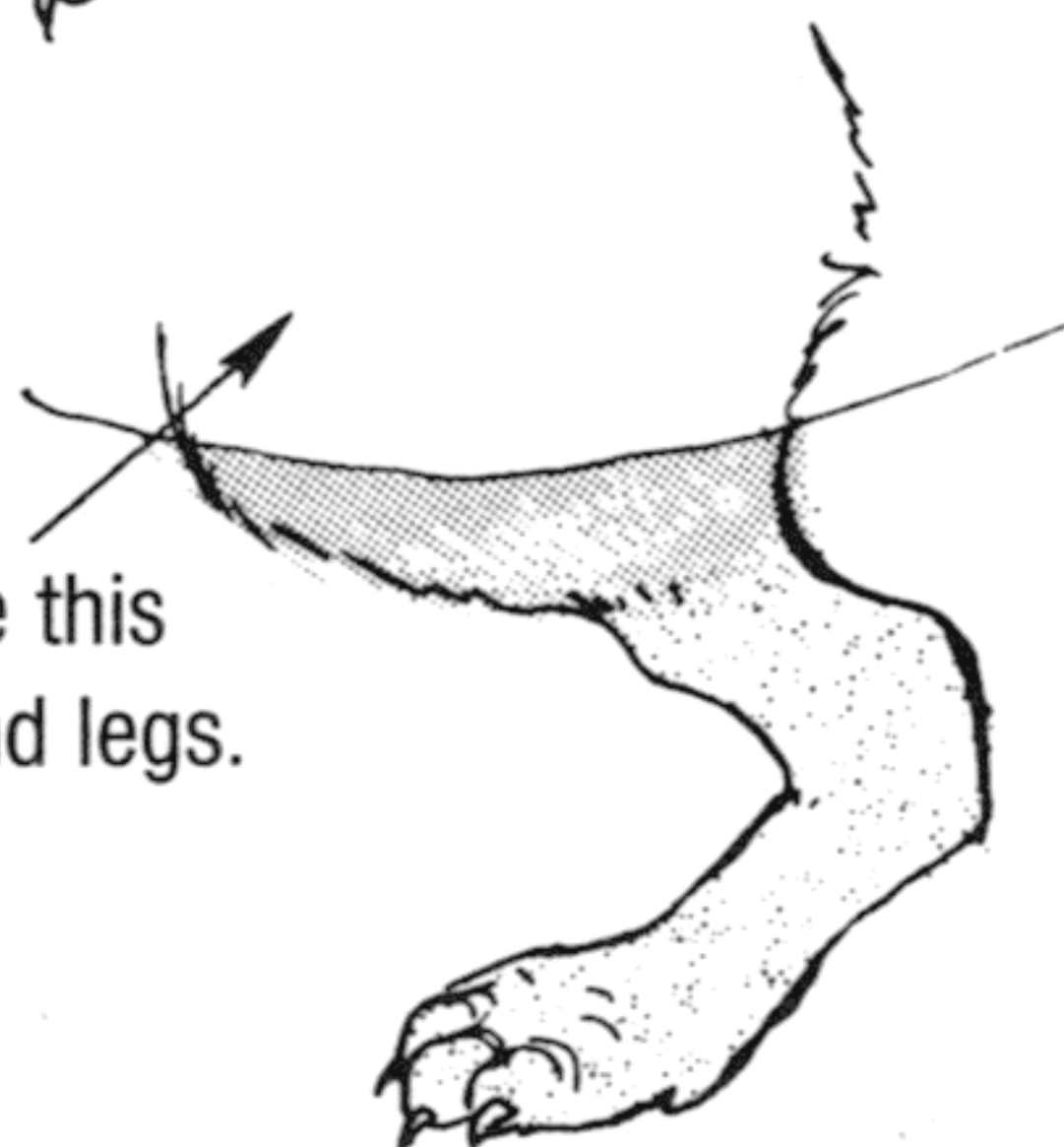
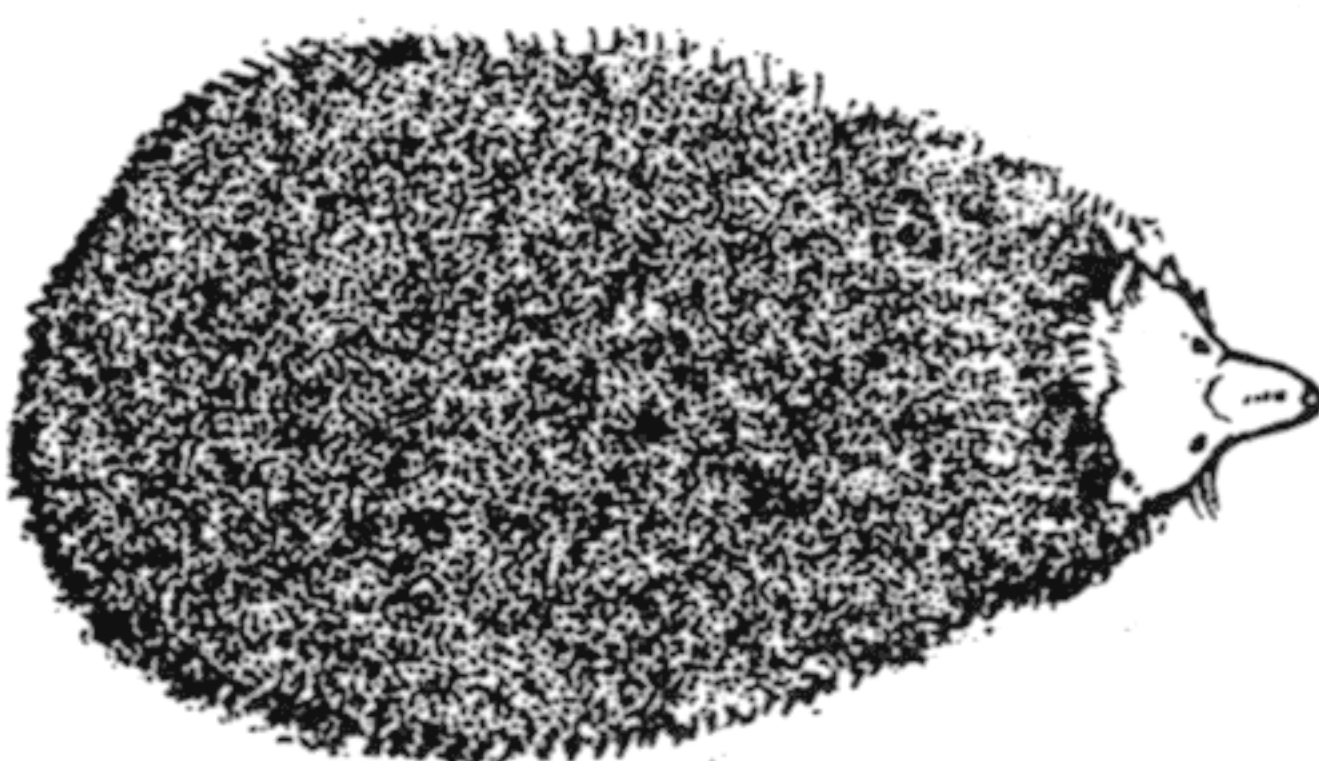
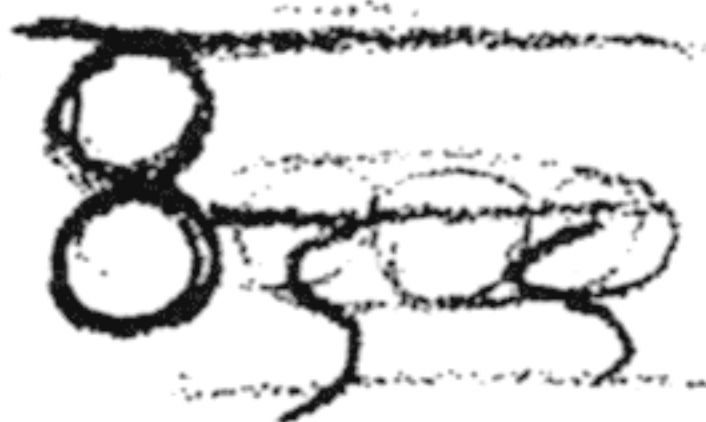
1

The mouth forms a "W"

Omit the part of the forelegs where they meet the body to create the look that they are emerging from the needle coat.

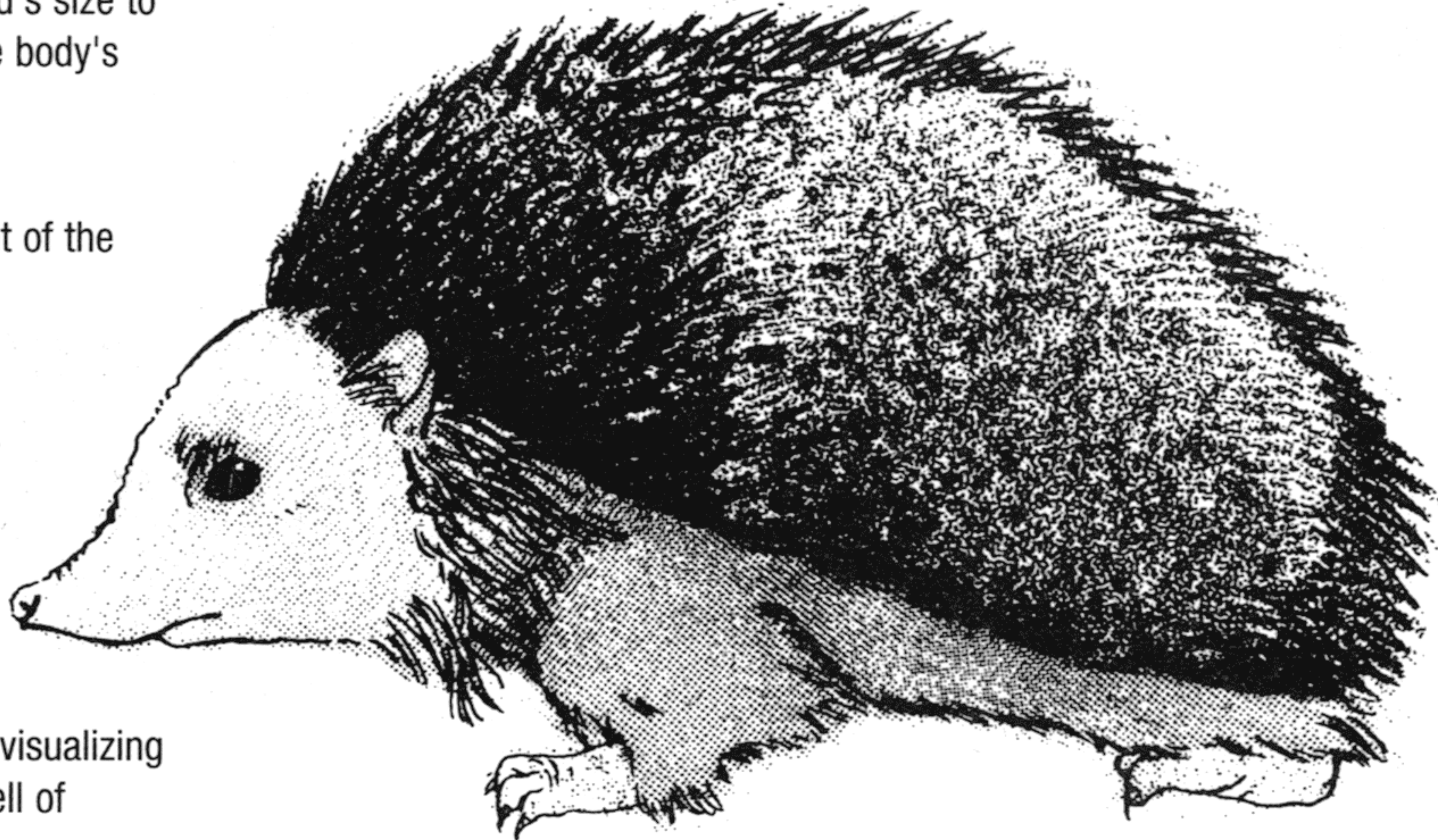
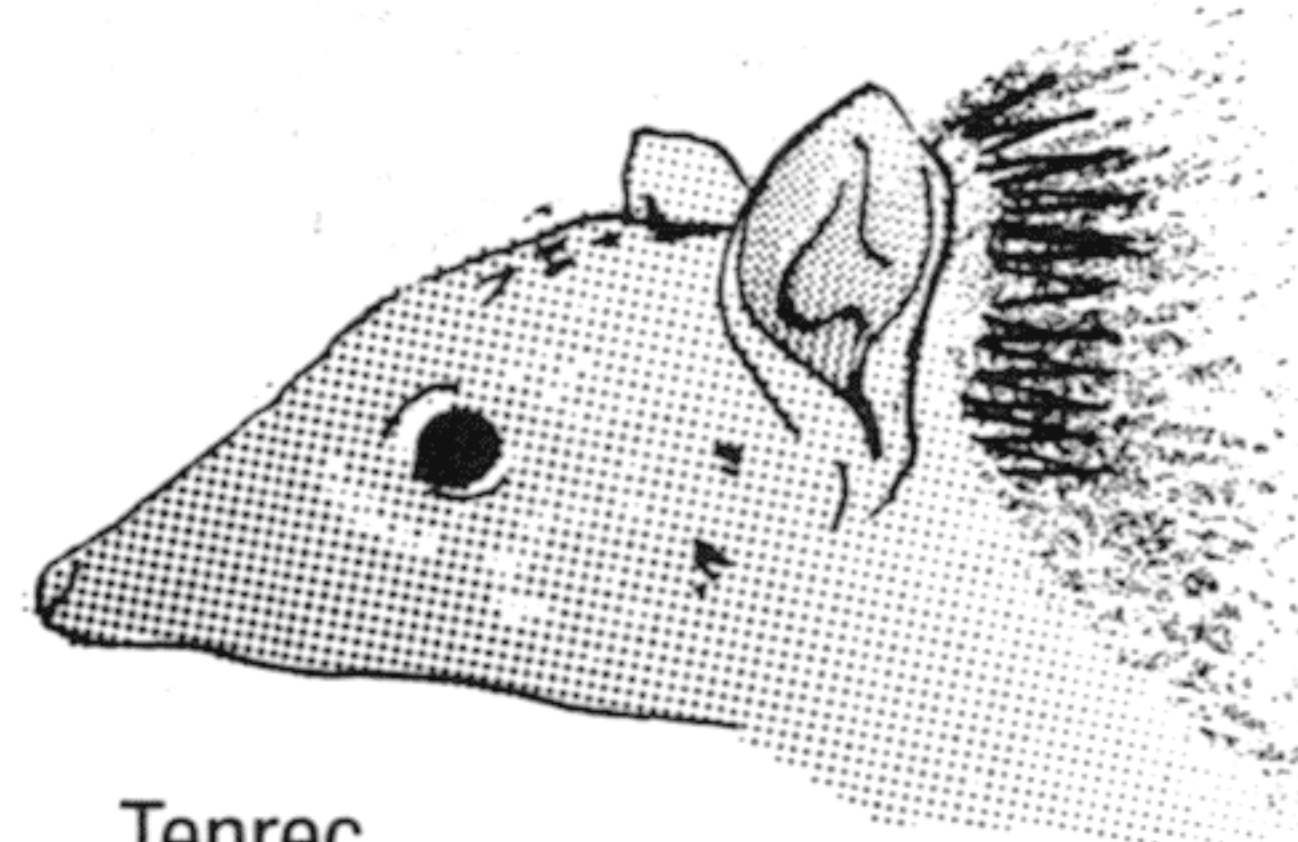
Nose tip

The needles are striped.

The needles radiate from two spots on the head.

Needles obscure this region of the hind legs.

Determine the head's size to establish the entire body's length.

Establish the height of the needle coat.

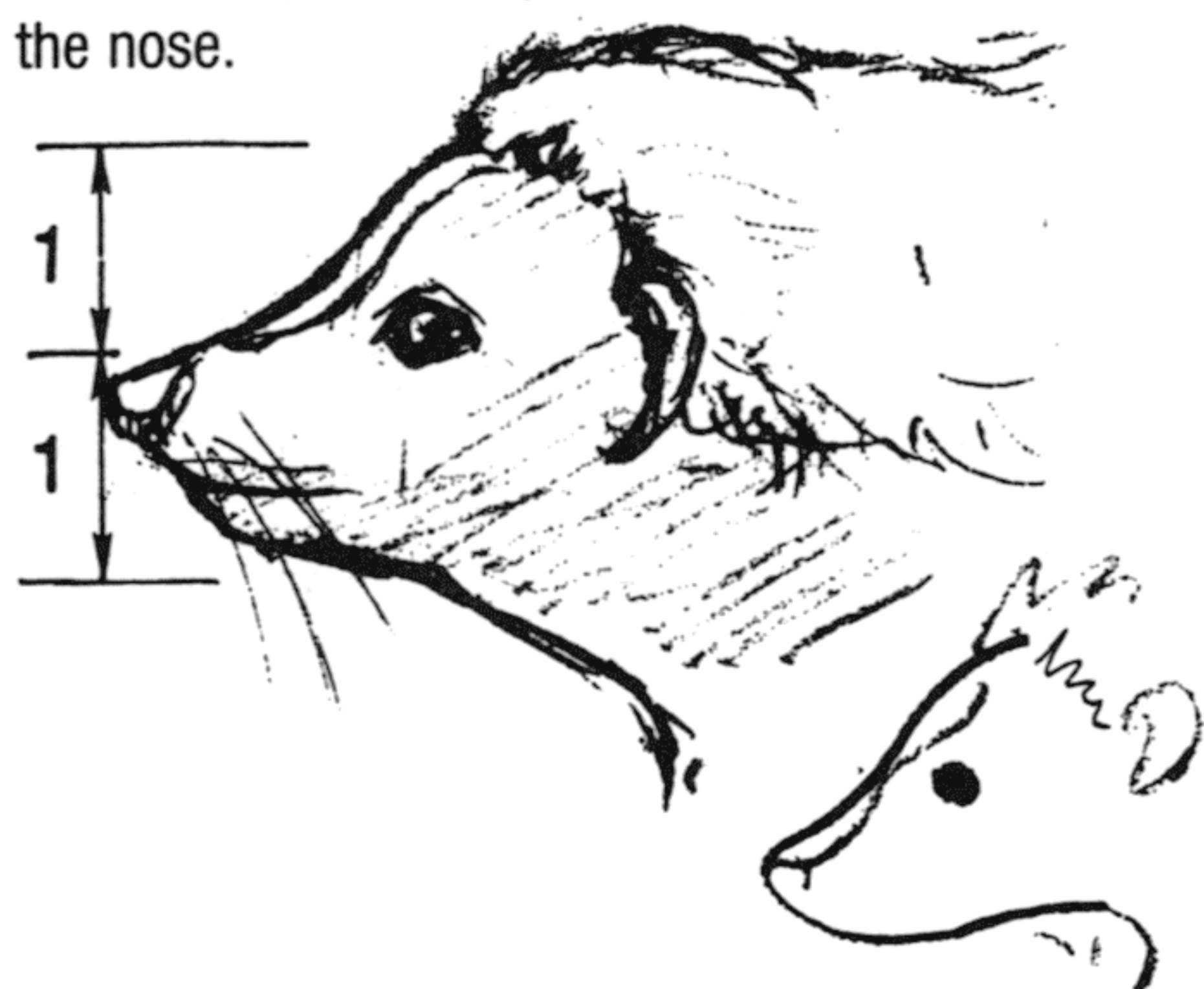
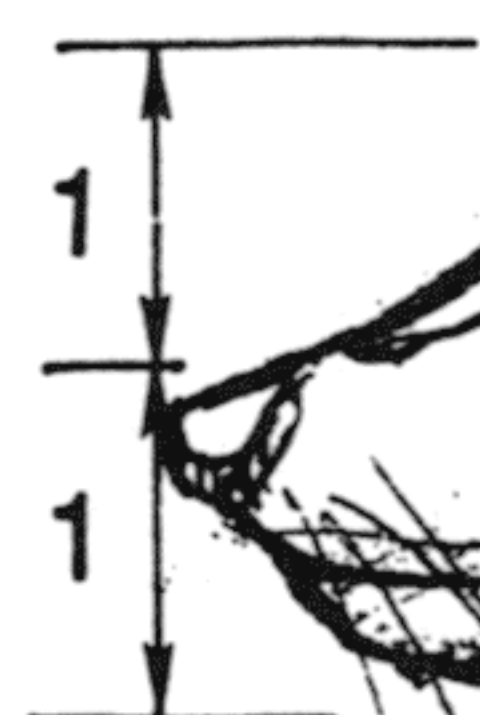
Sketch the exterior contours.

When drawing, try visualizing a rat wearing a shell of needles.

Greater hedgehog

Tenrec

The ears fold when the hedgehog curls into a ball.

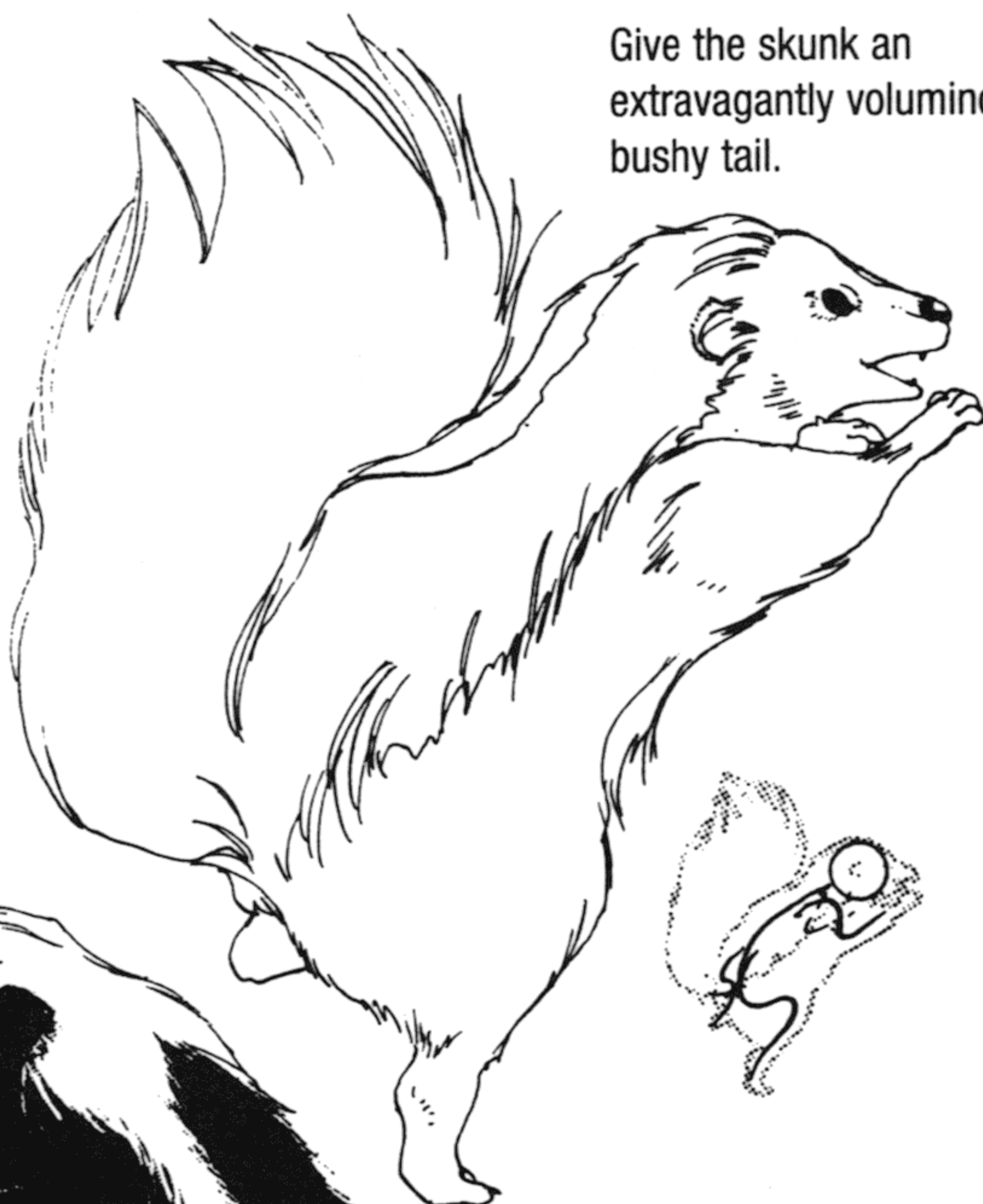
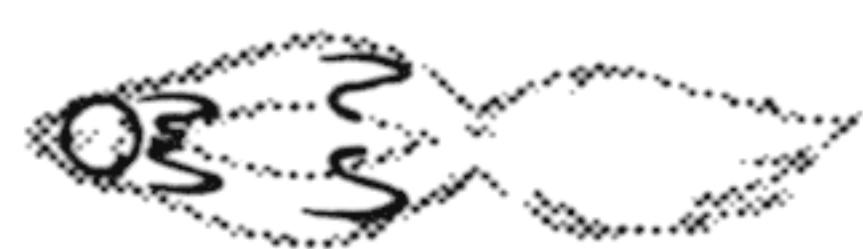
Skunk

Draw the profile with the snout turning up. From the front, the head with its full cheeks should form a pentagonal shape. The fur covering the trunk gives it a stout appearance.

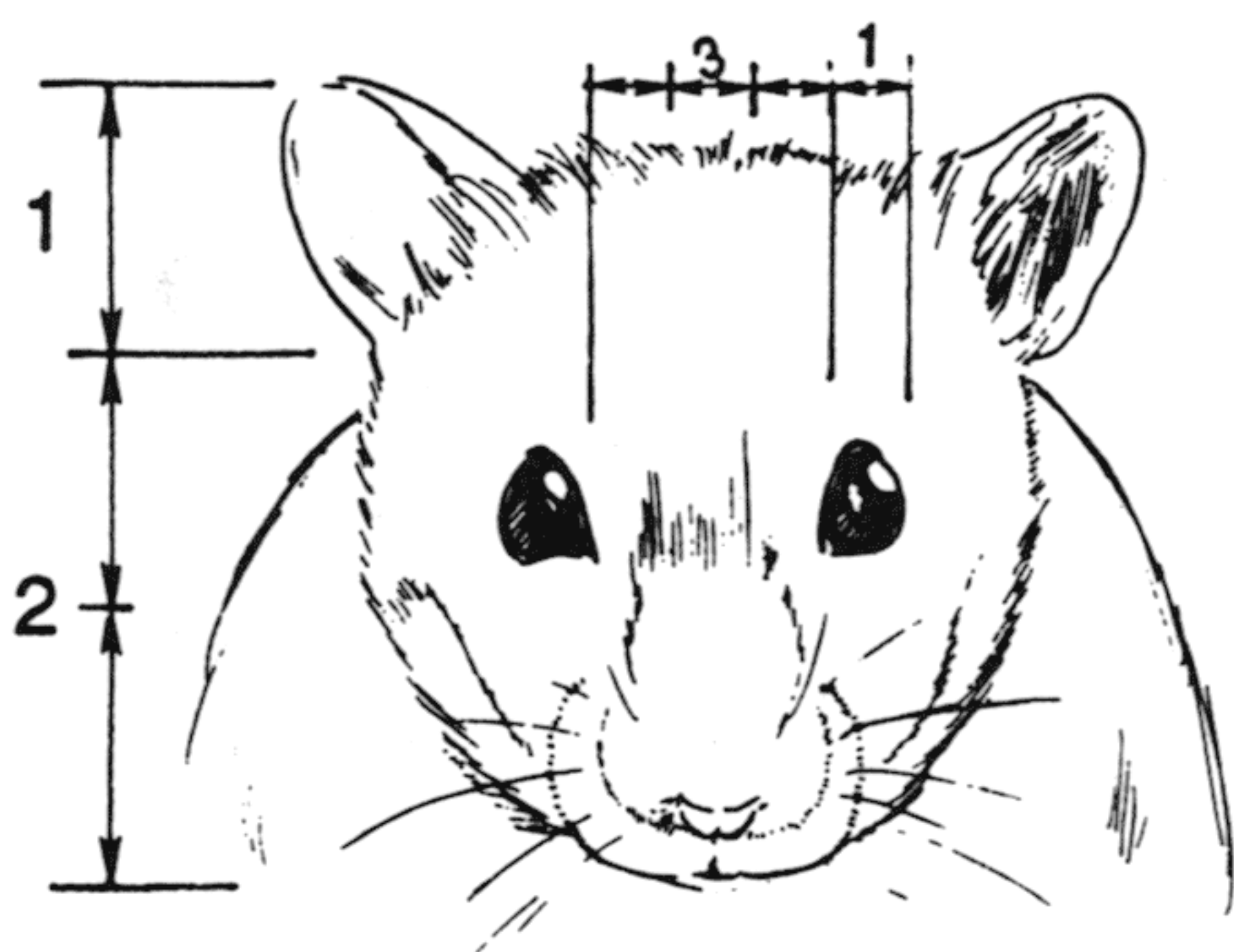
Use a gentle S-curve from the forehead to the tip of the nose.

A thin rhomboid shape appears in the forehead's center.

From the side, the whole trunk appears to be covered in white fur. The limbs and face are black.

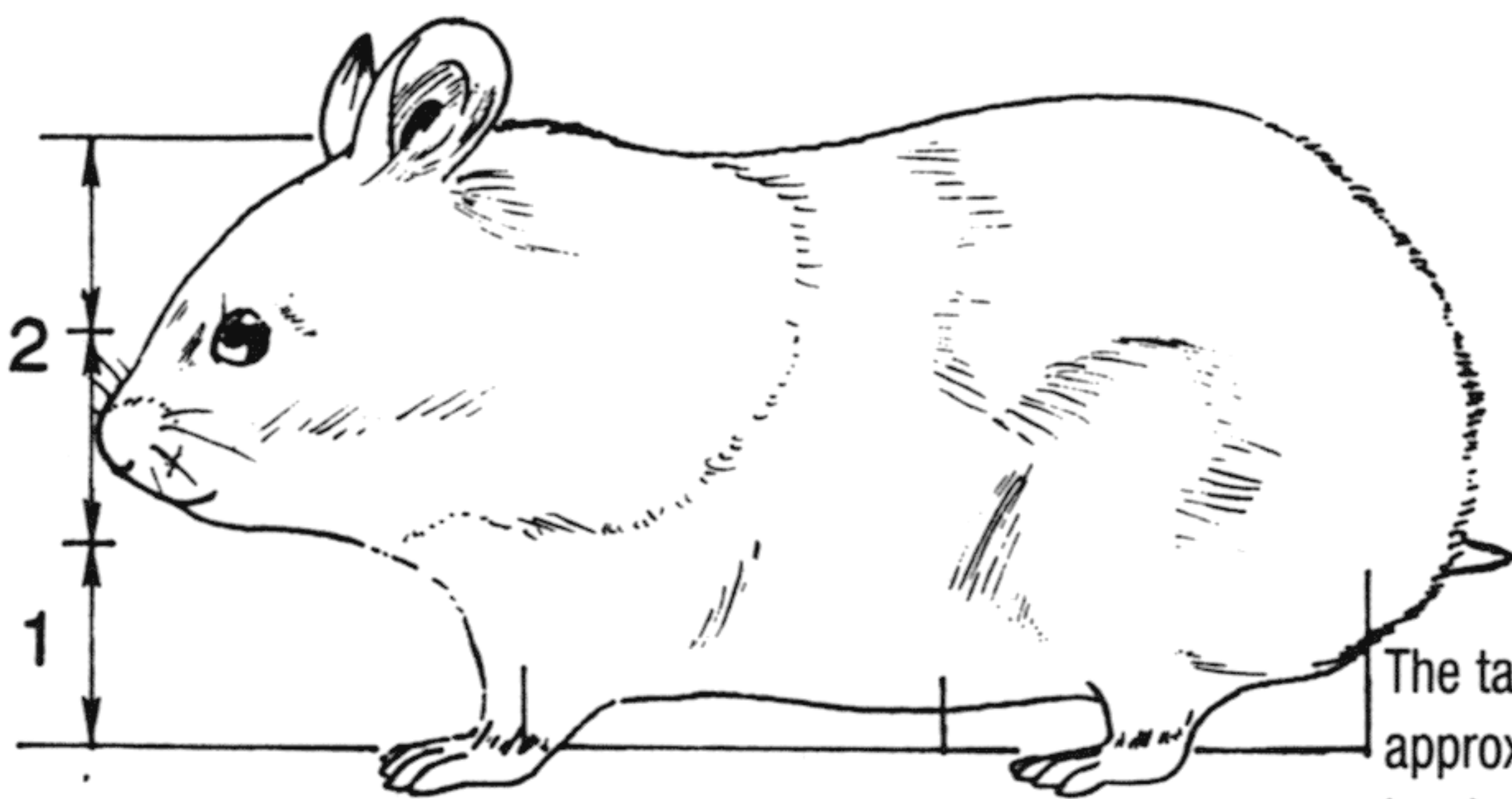
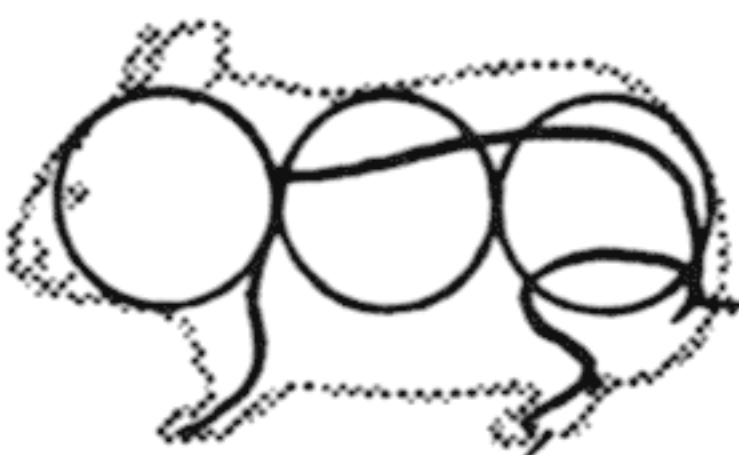
Give the skunk an extravagantly voluminous, bushy tail.

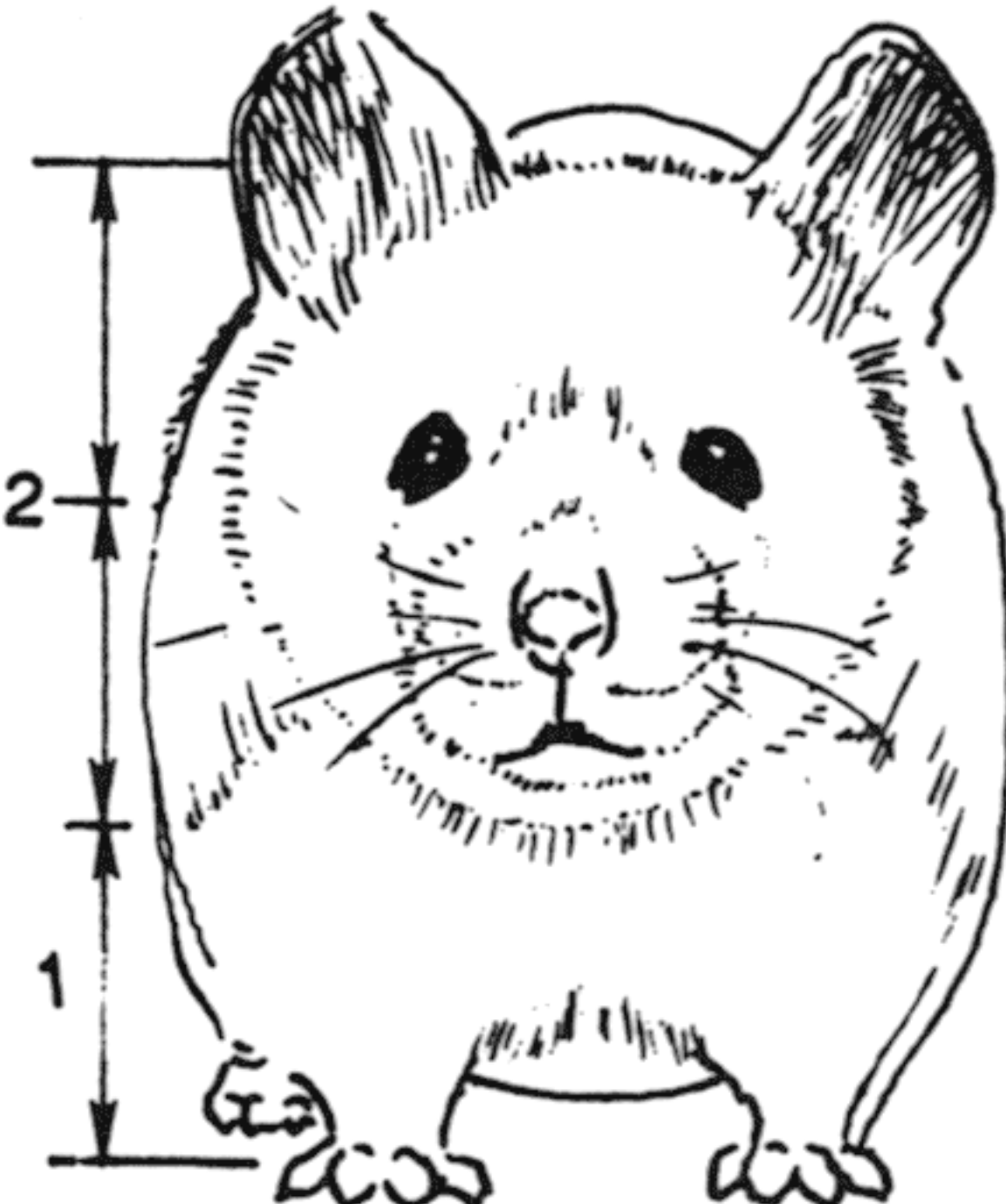
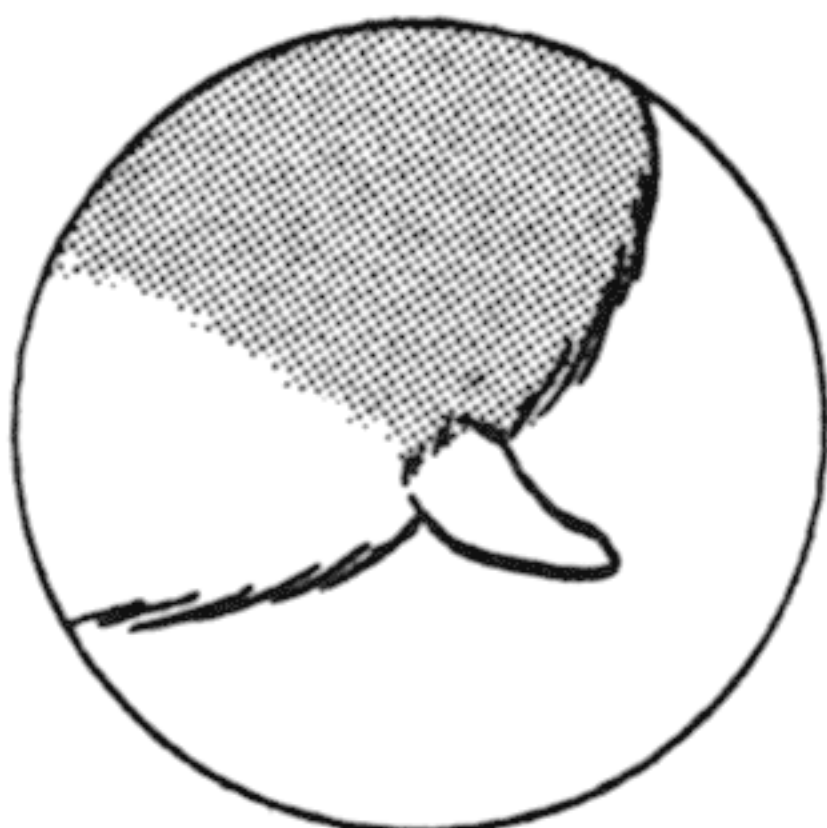
The center of the back sports a long rhomboid shape.

Hamsters

The hamster is a rodent whose sticky-out ears are approximately 1/3 the head's size. Its legs are stubby, and its abdomen lies close to the ground. Be sure to give both the head as well as the body a sense of roundness.

The eyes are spaced three eye-widths apart.

The ears are about 1/3 the size of the head.

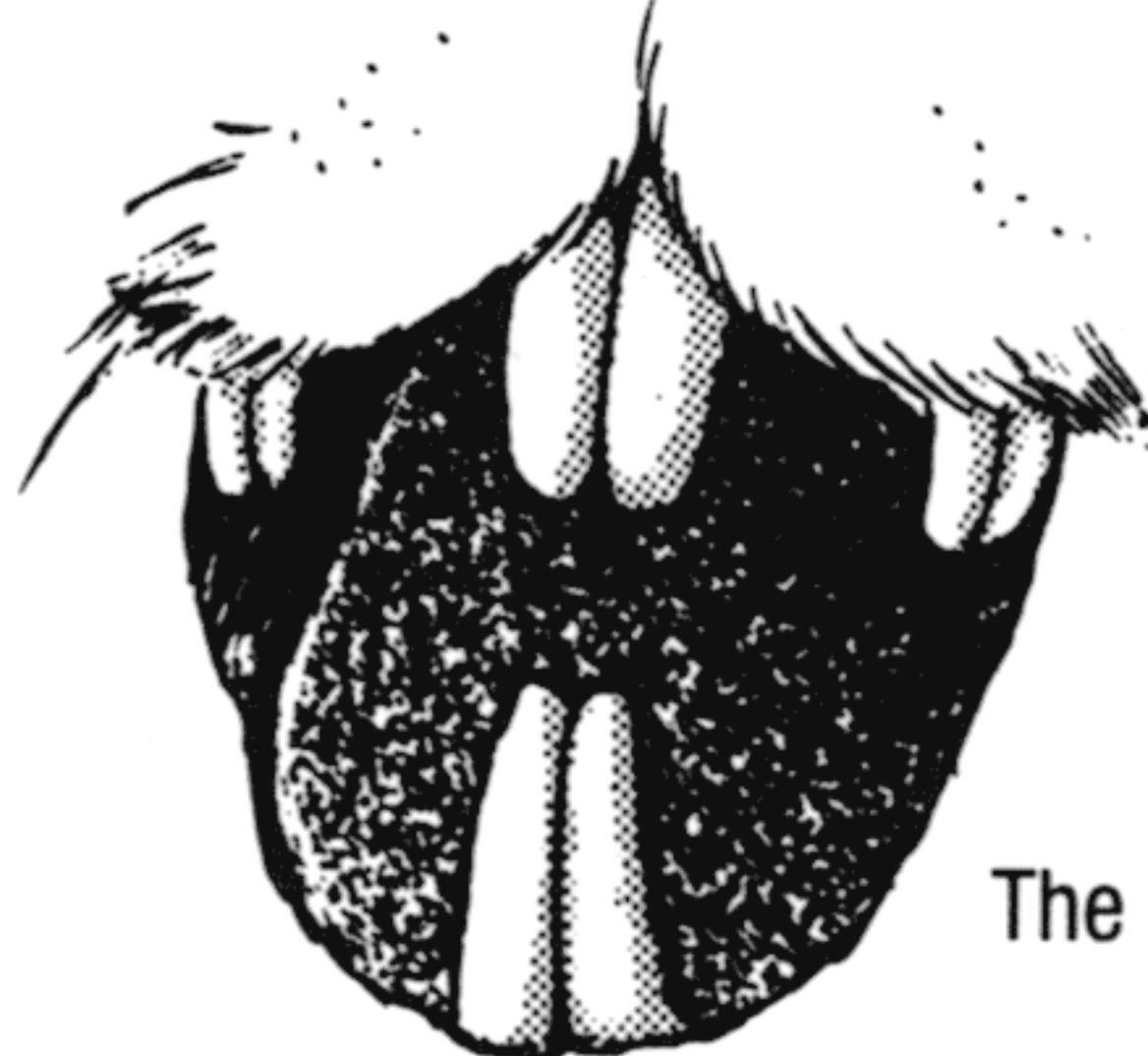
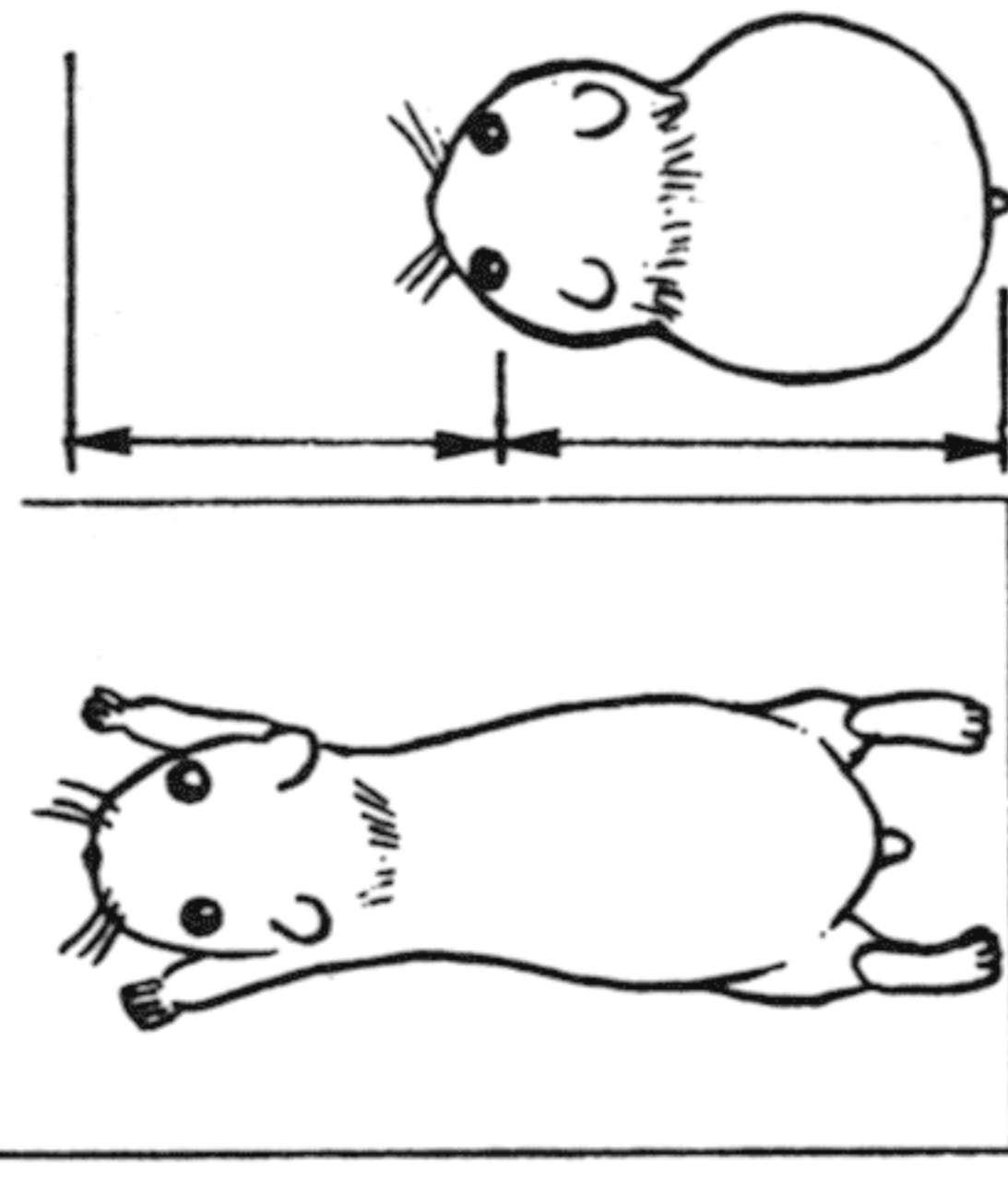
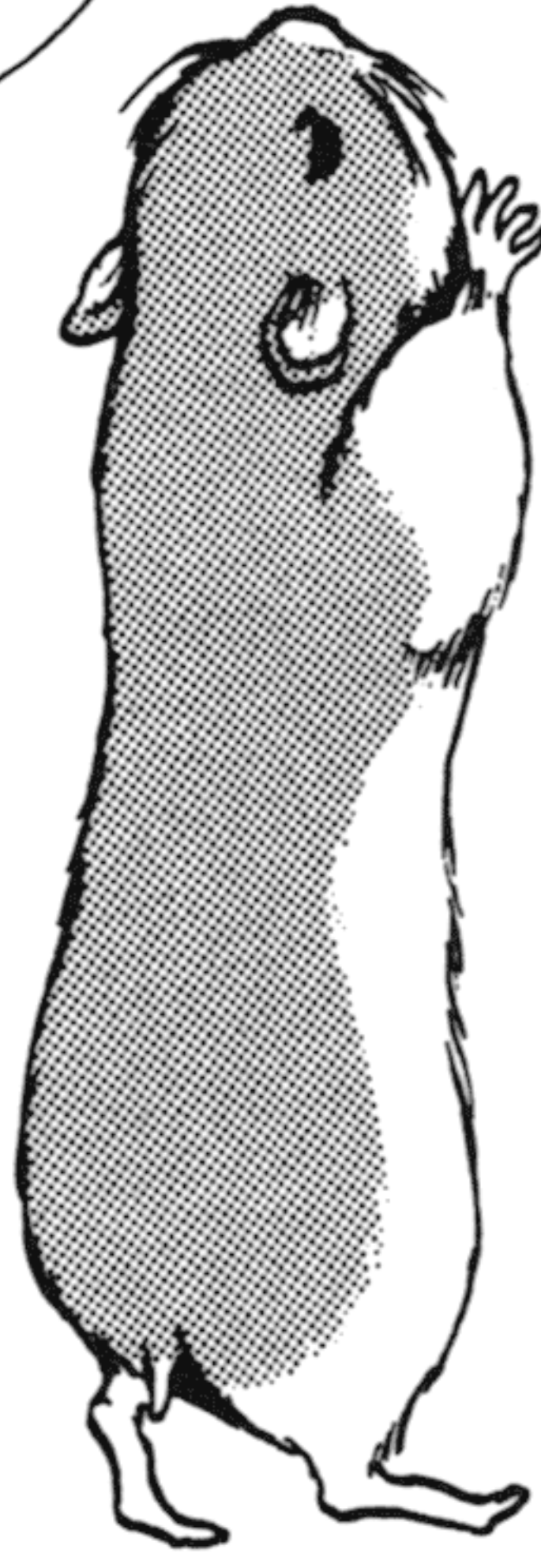
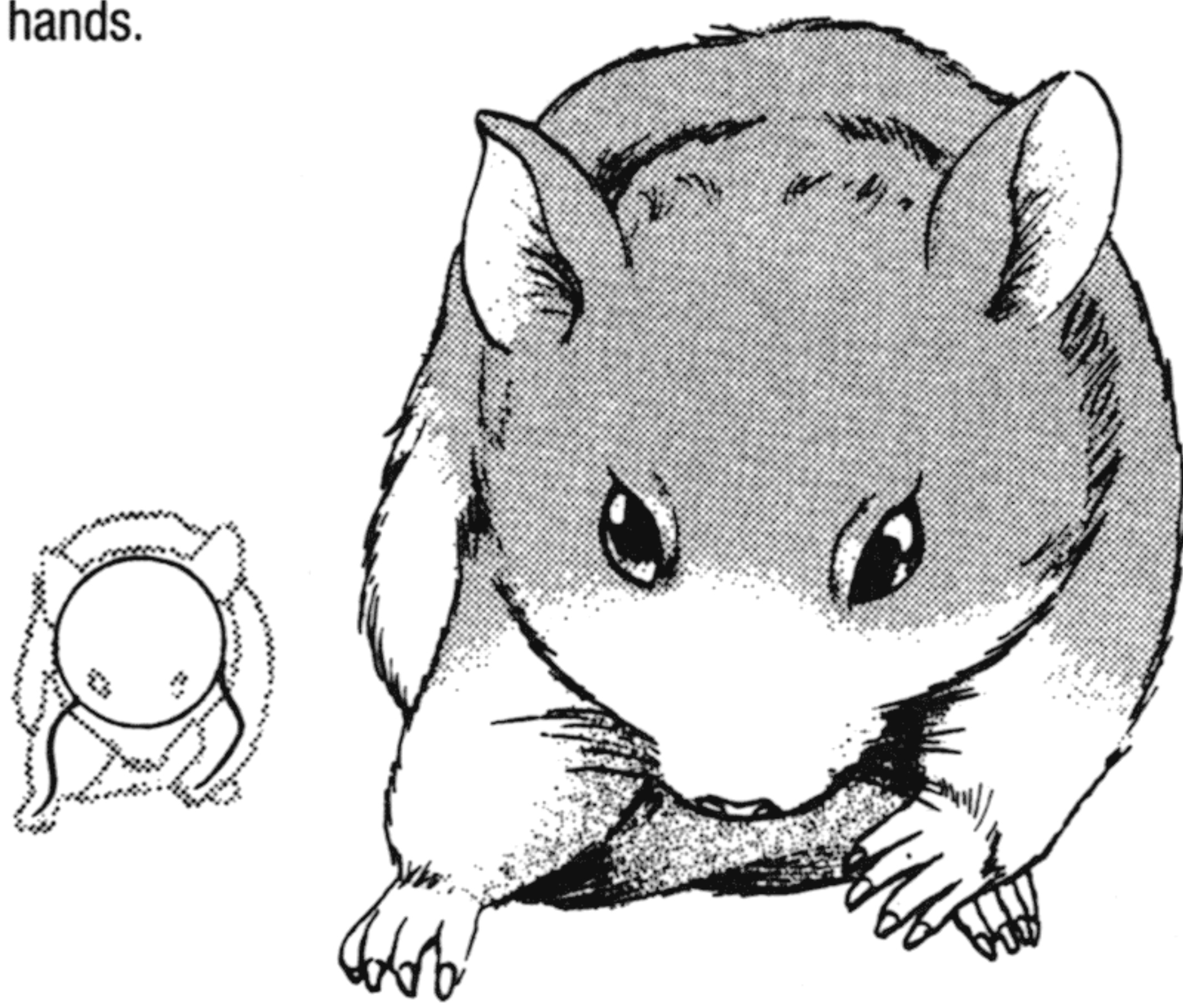
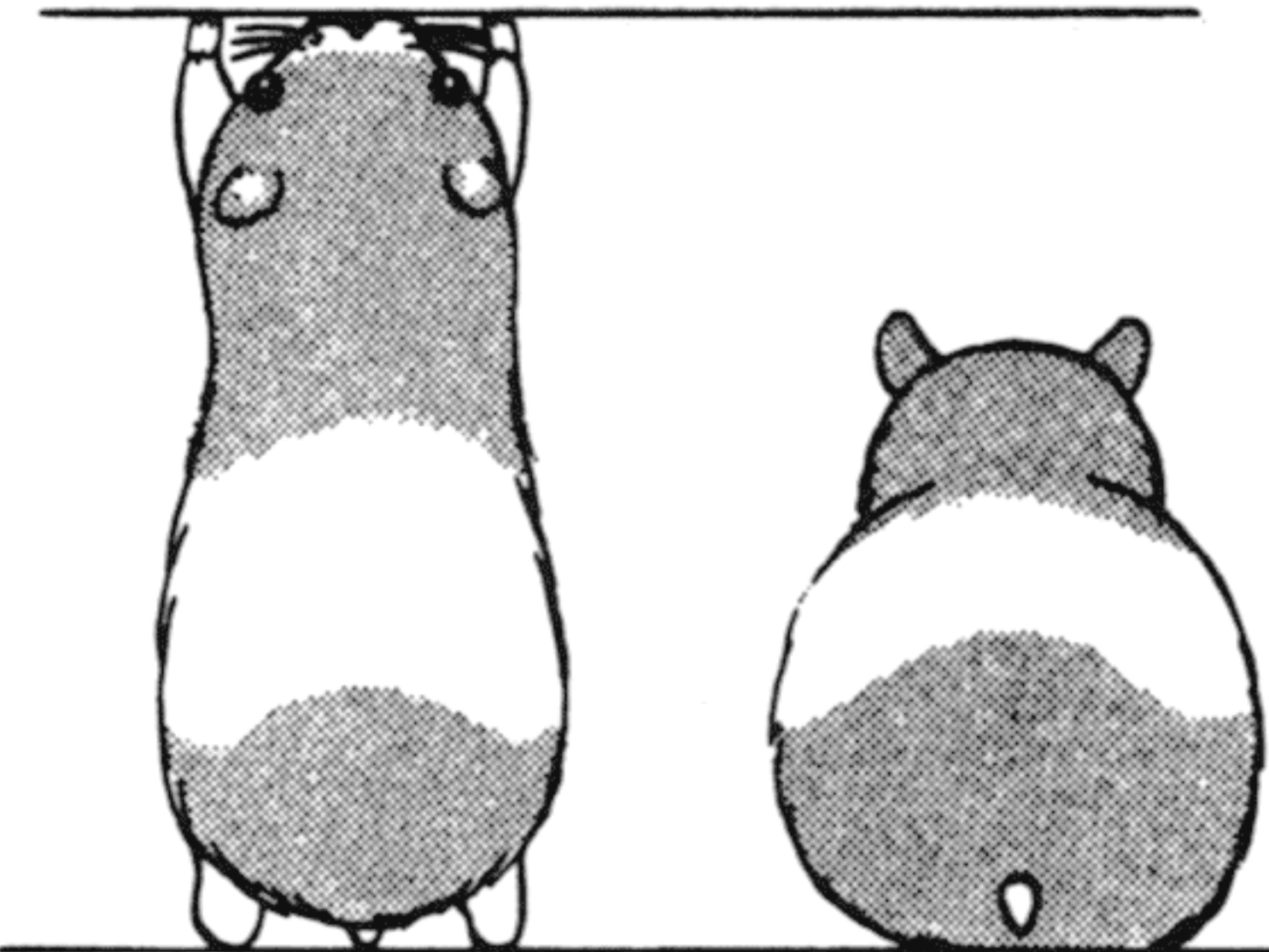
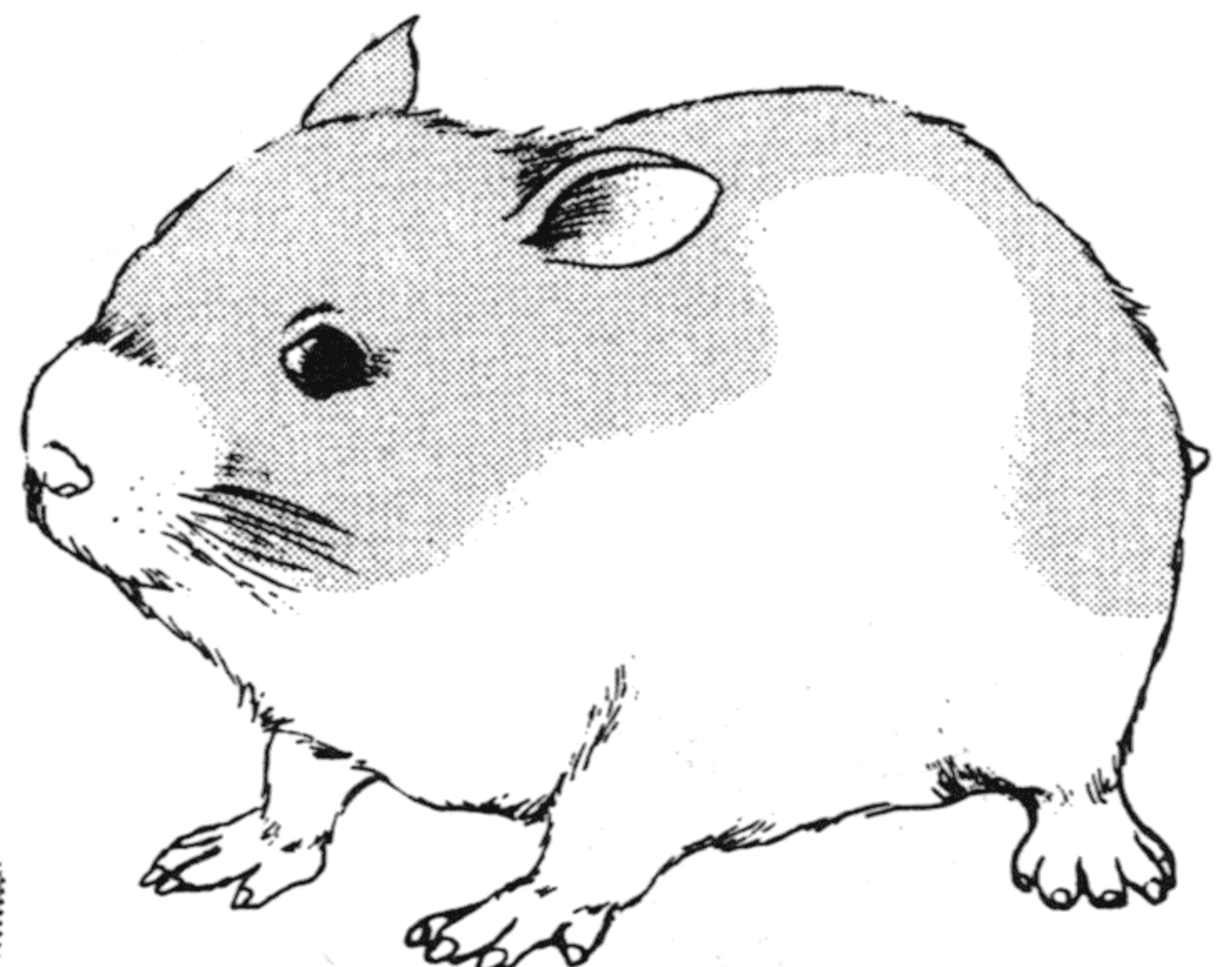
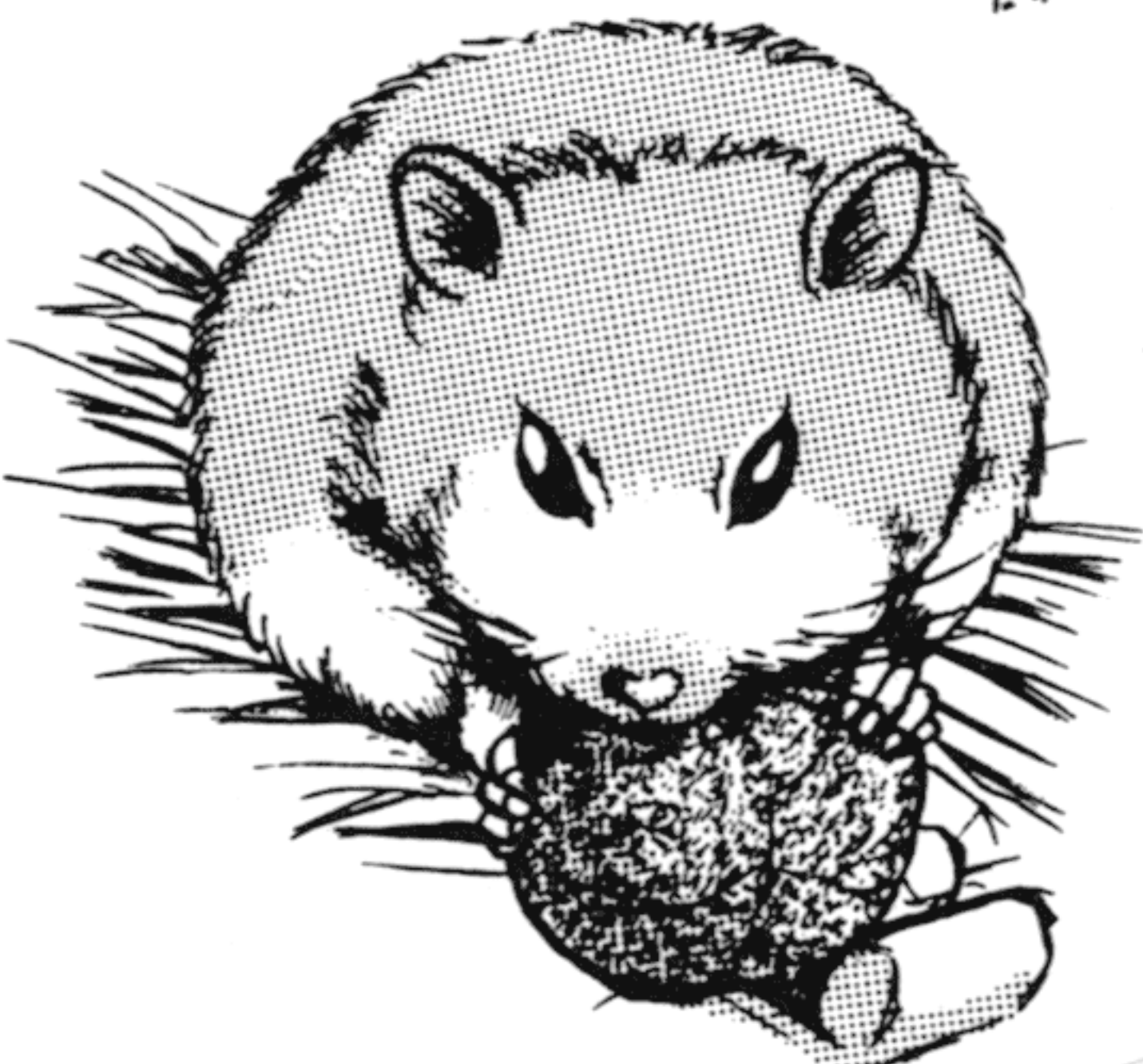
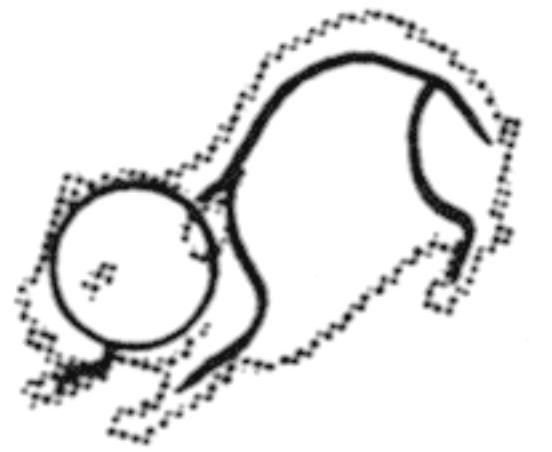
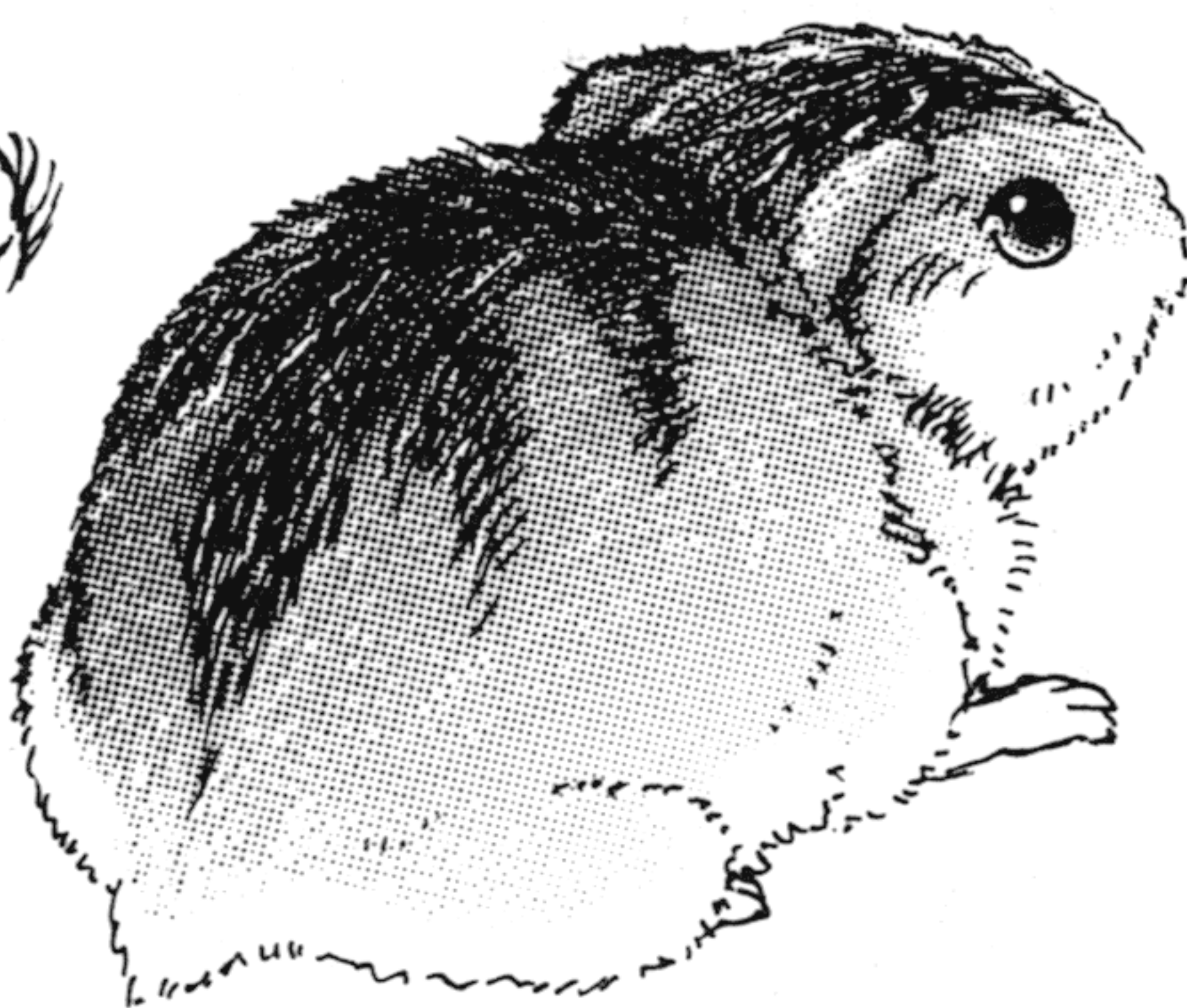
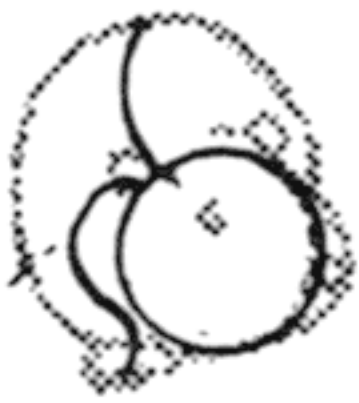
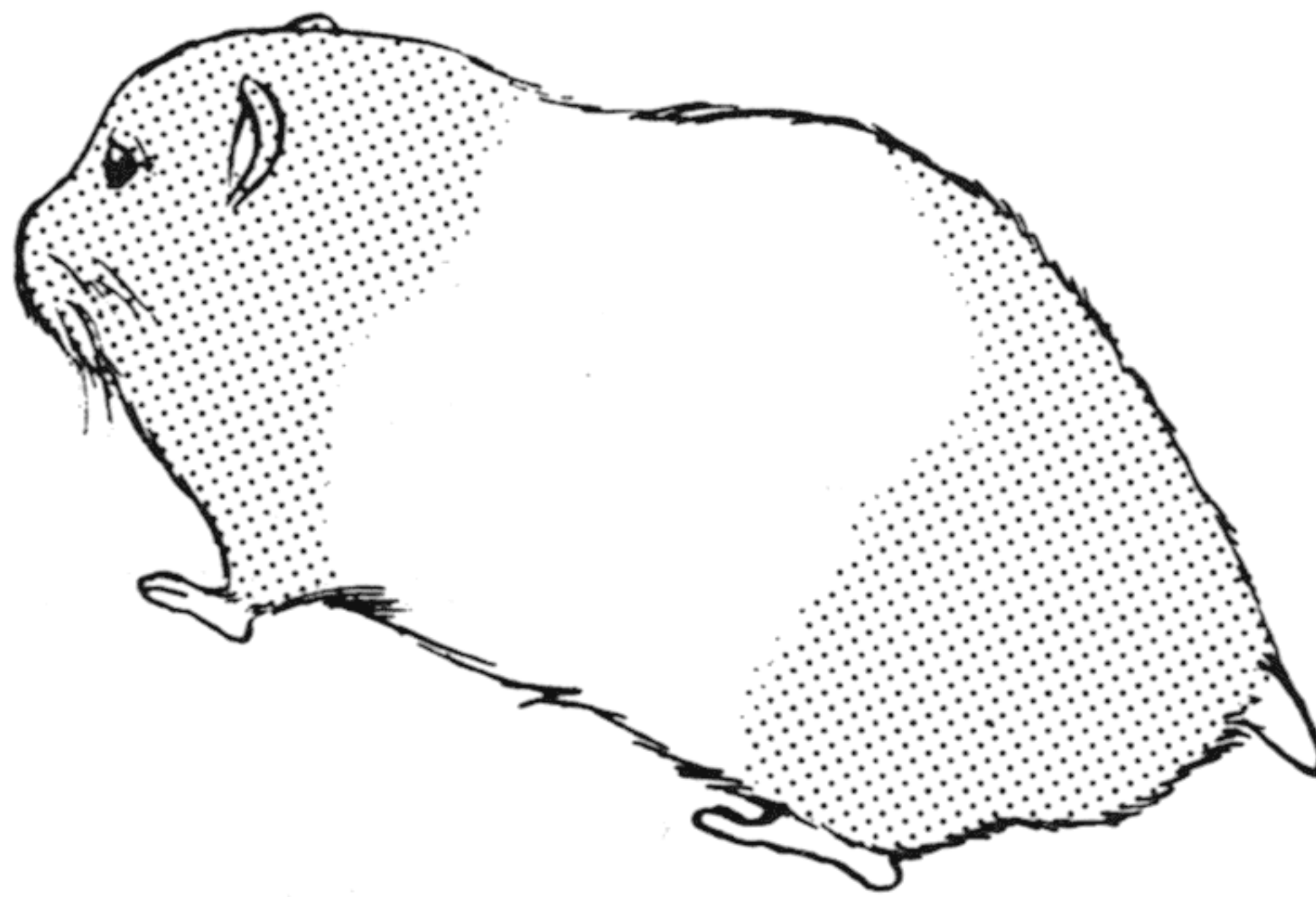
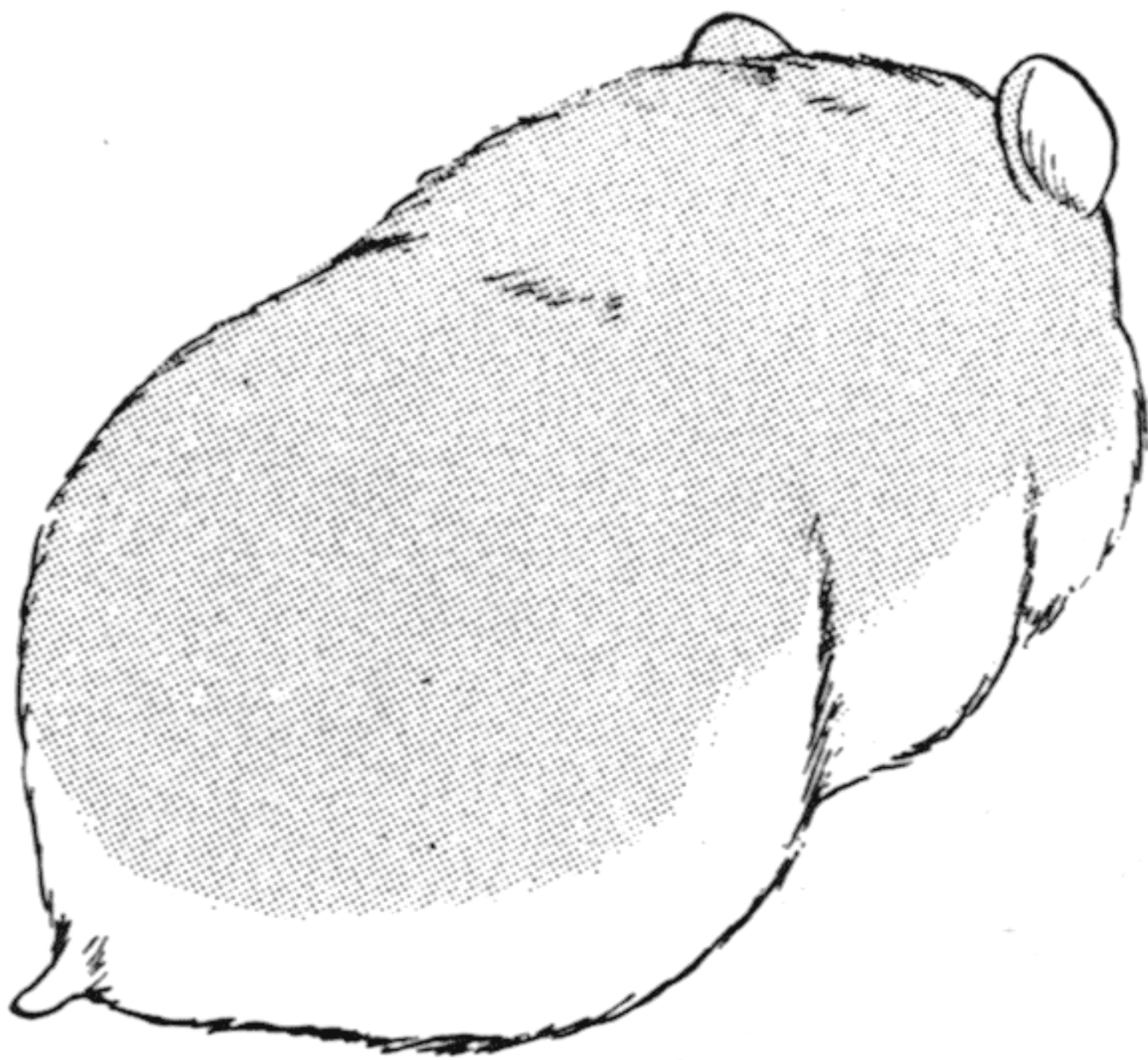
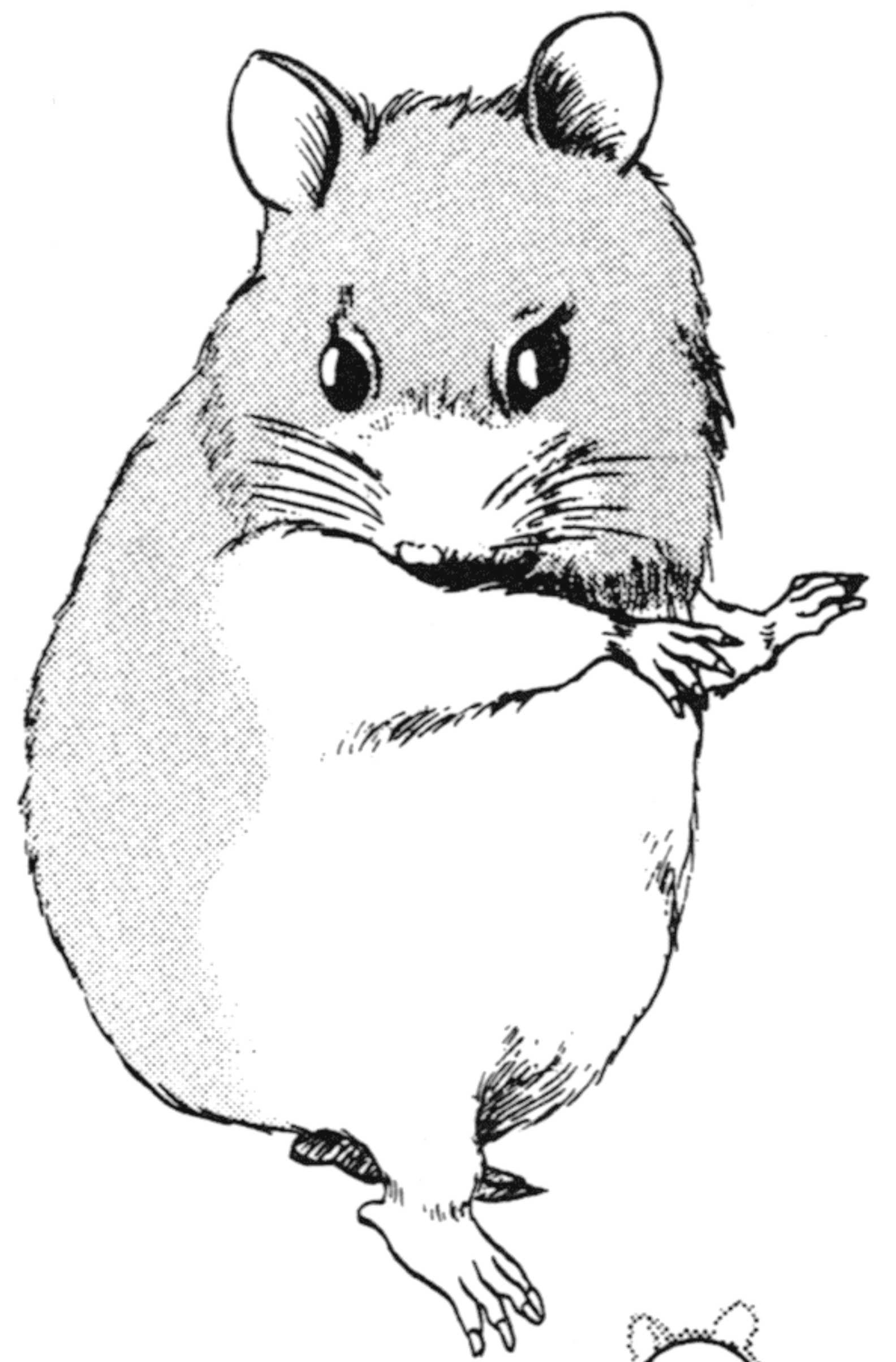
The eyes bulge and are lidded.

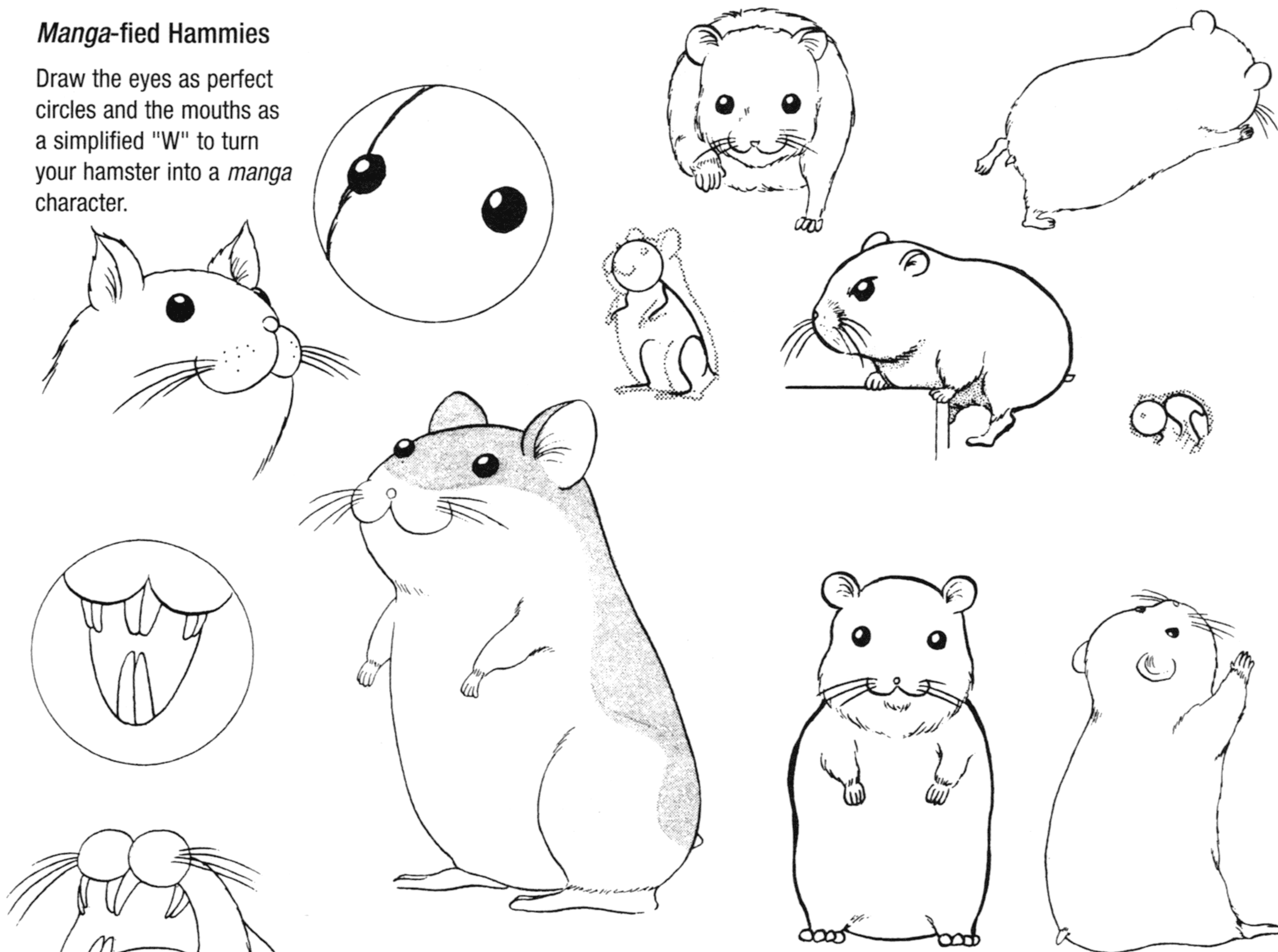
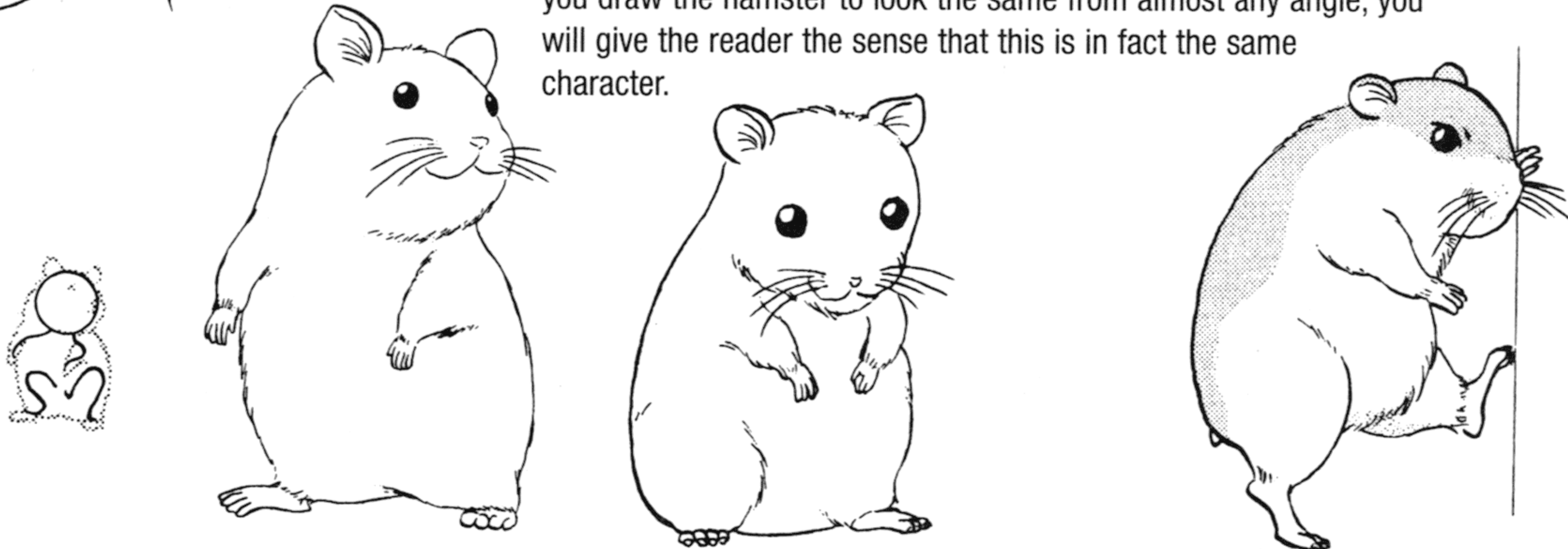
Ear

The tail attaches approximately on level with the throat.

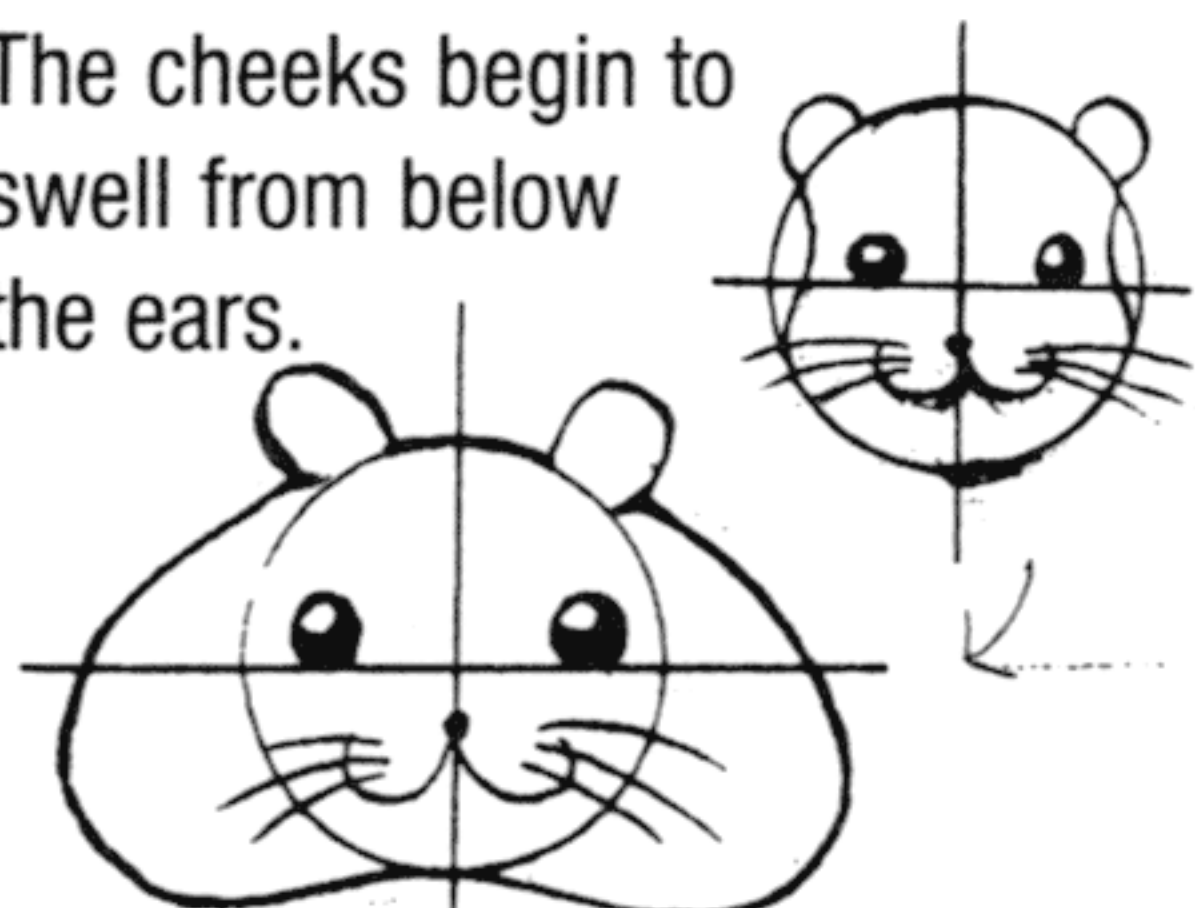
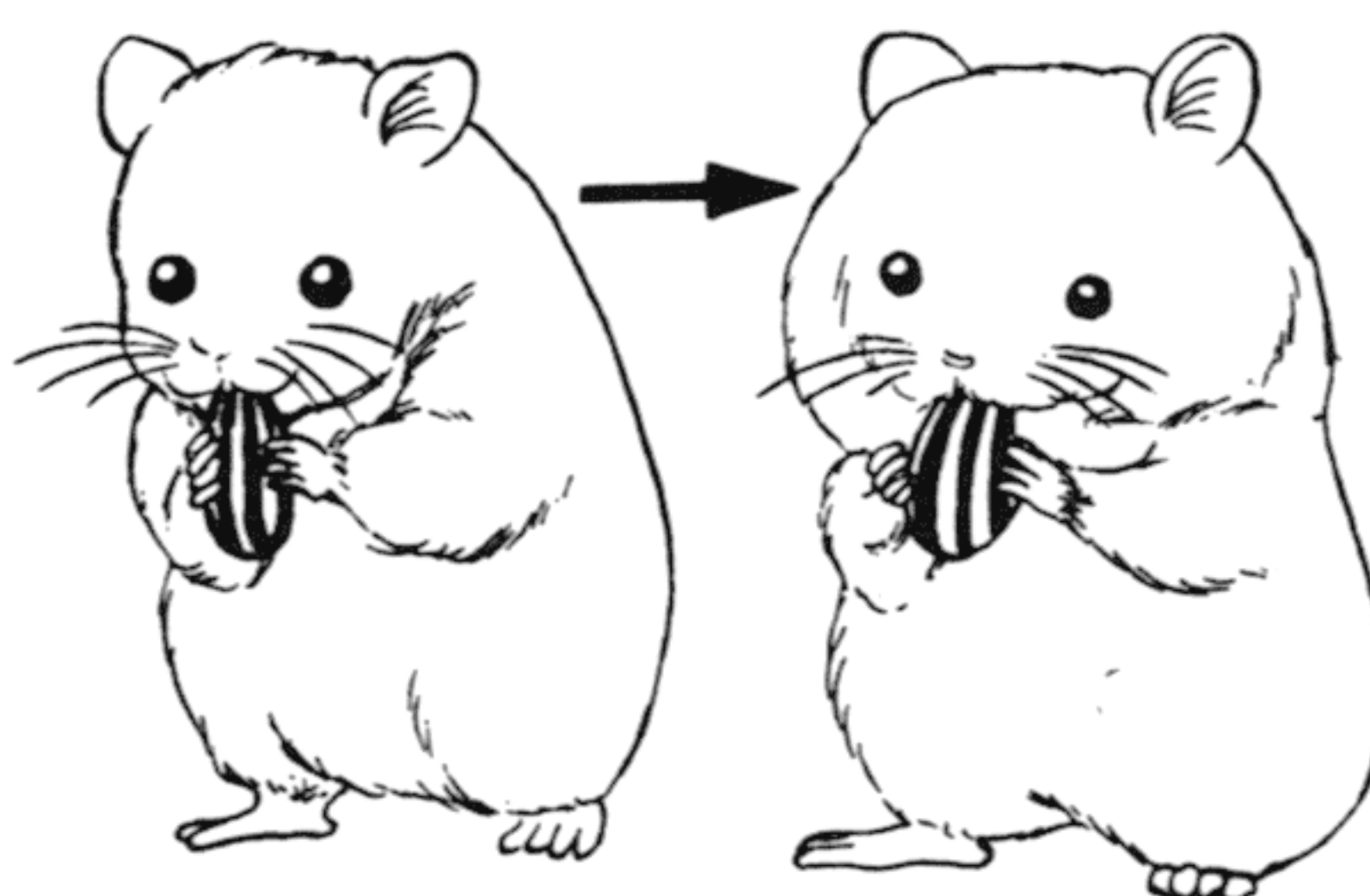
The belly lies close to the ground.

From a front view, the head comprises 2/3 of the figure.

The tail is inconspicuous.

The hind legs' toes are long, and each claw emerges from the whole tip of the toe.

The front paws are reminiscent of human hands.

When stretching, the hamster appears to double its normal length.

The bottom row of teeth are longer.

Manga-fied Hammies

Draw the eyes as perfect circles and the mouths as a simplified "W" to turn your hamster into a *manga* character.

Decide where to place the white spot (reflected light) in the eye. If you draw the hamster to look the same from almost any angle, you will give the reader the sense that this is in fact the same character.

Stuffed with Goodies

The cheeks begin to swell from below the ears.

The cheek pouches are bigger than those of a squirrel.

When the hamster crams its cheek pouches full of food, the face expands to twice its normal width.

Horses

From straight on, a horse's eyes appear to slant upward, giving them a stern expression. Prevent the legs from appearing to be simple sticks by drawing chunky joints, thus giving the legs some curve.

The horse's ears should be about as long as the horse's forehead is wide.

The ears should be spaced closer together than the eyes.

The neck and head are about the same length.

Picture the horse's head as a rectangle.

1

1

1

1

Originating at the top of the rump, the tail appears to grow out as an extension of the back.

Shoulder

Elbow

Knee

Ankle

Heel

Wrist

The flat of the foot (the equivalent of the palm on a human).

Toe

Toe

This part is the equivalent of the sole on a human.

1

1.5

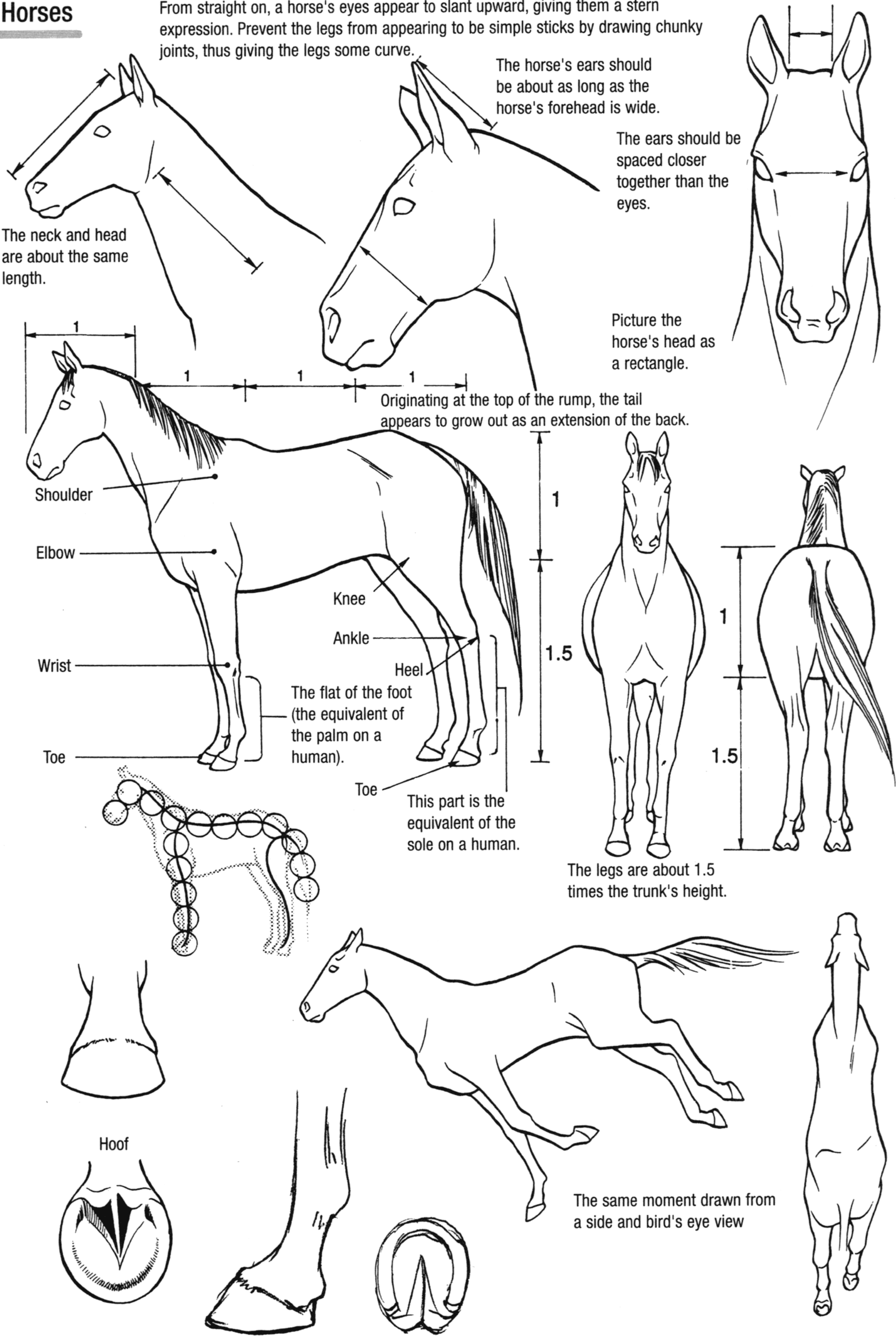
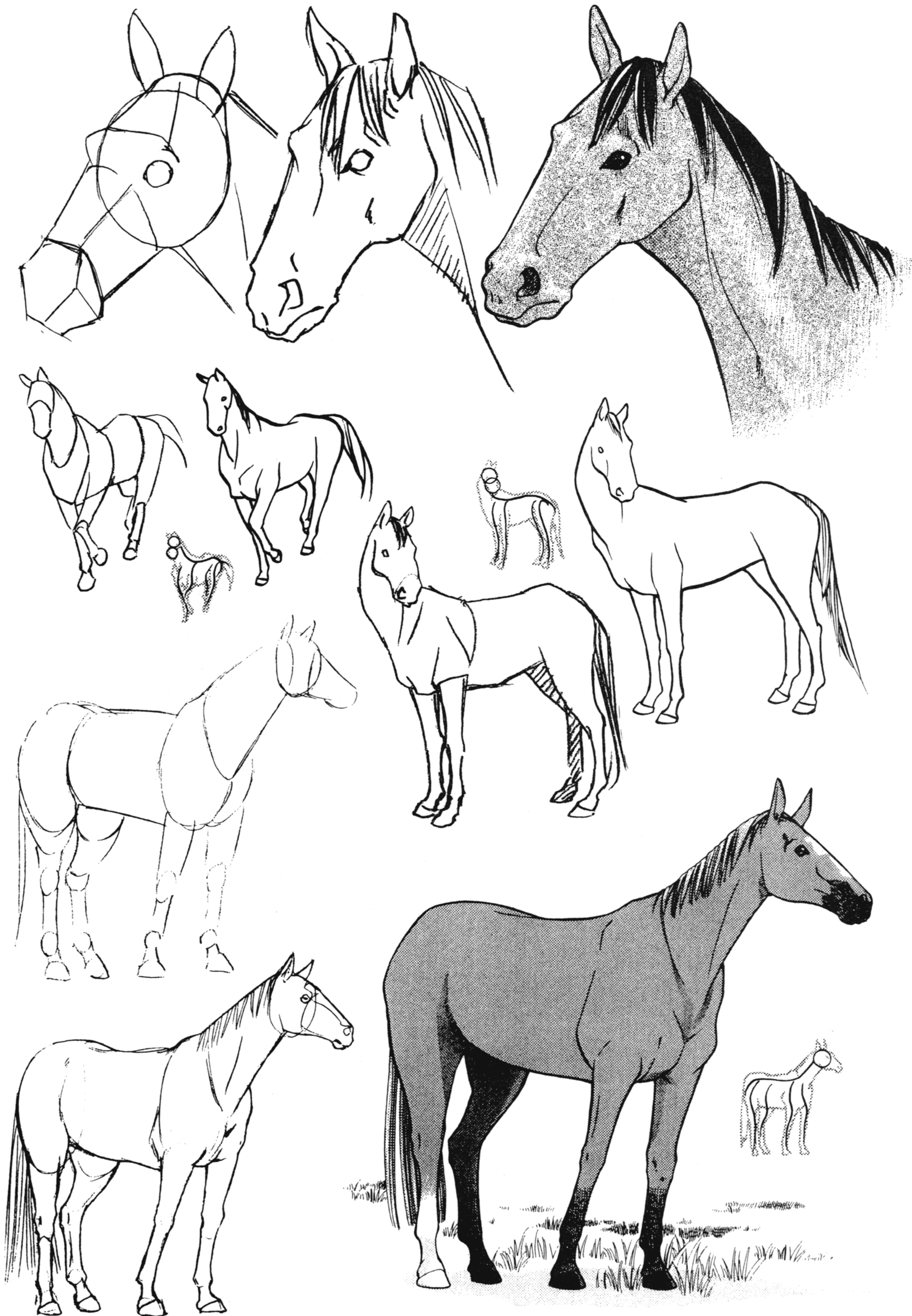
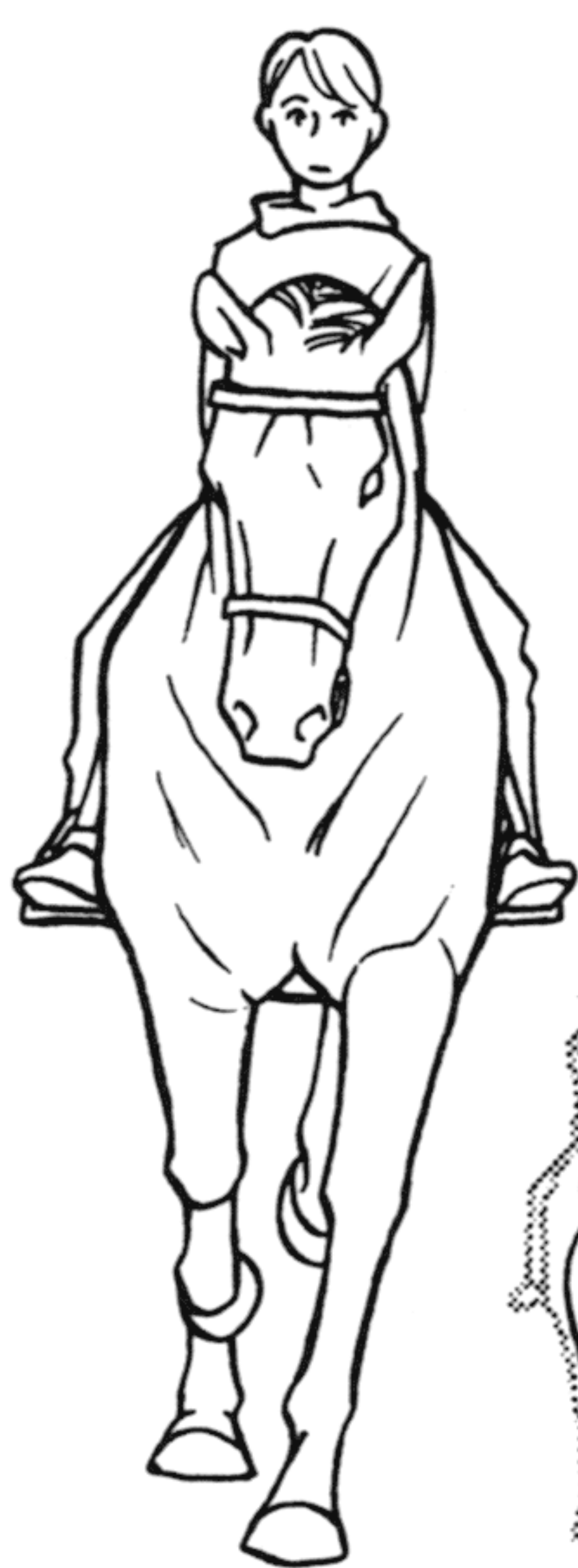
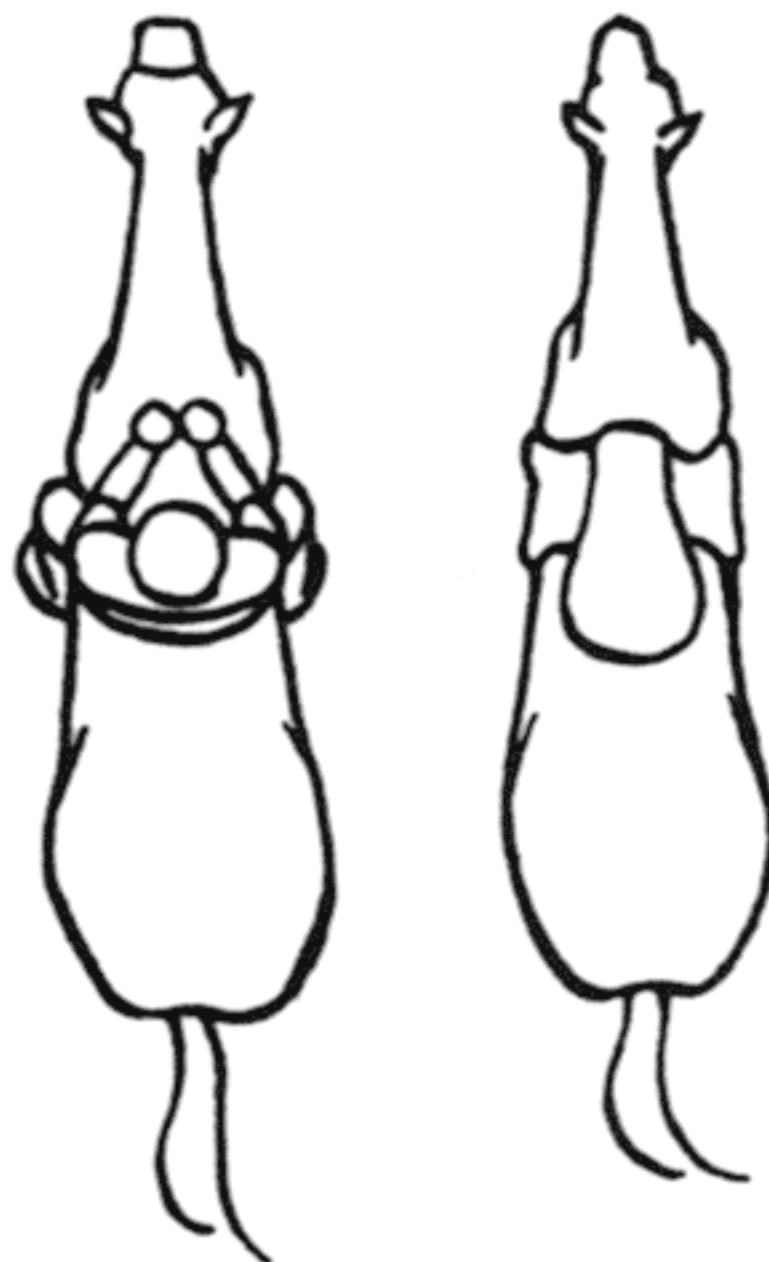
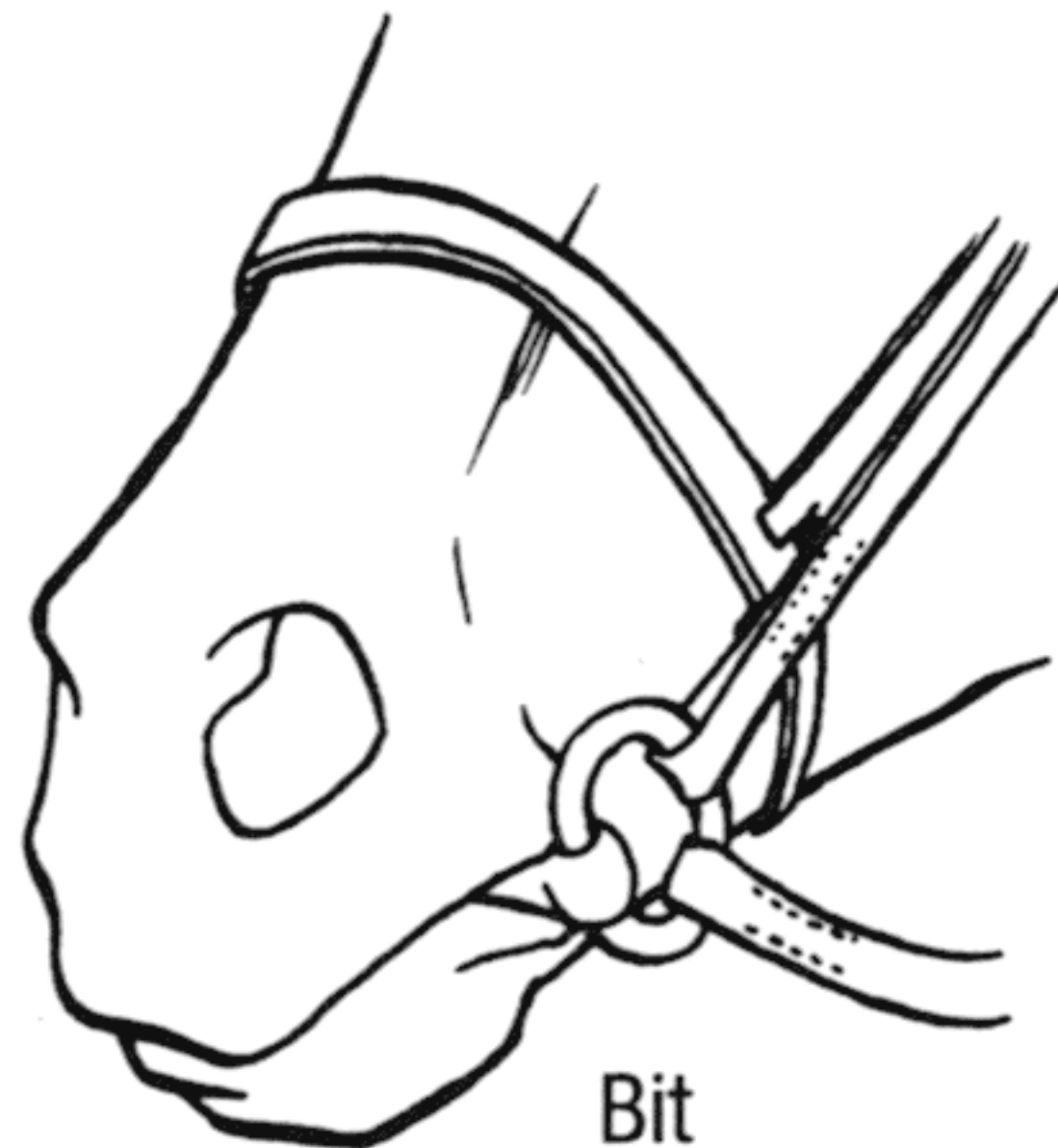
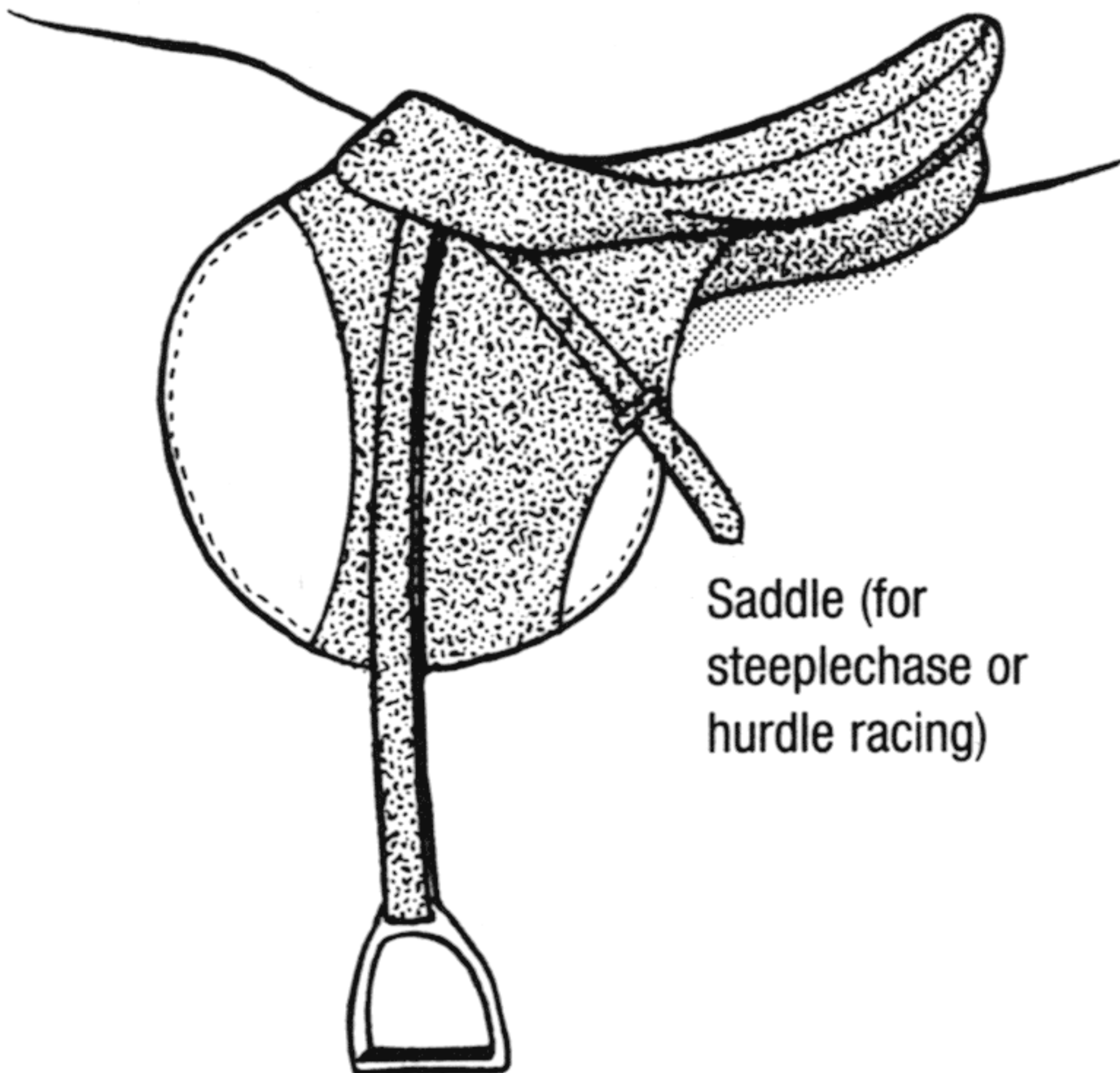
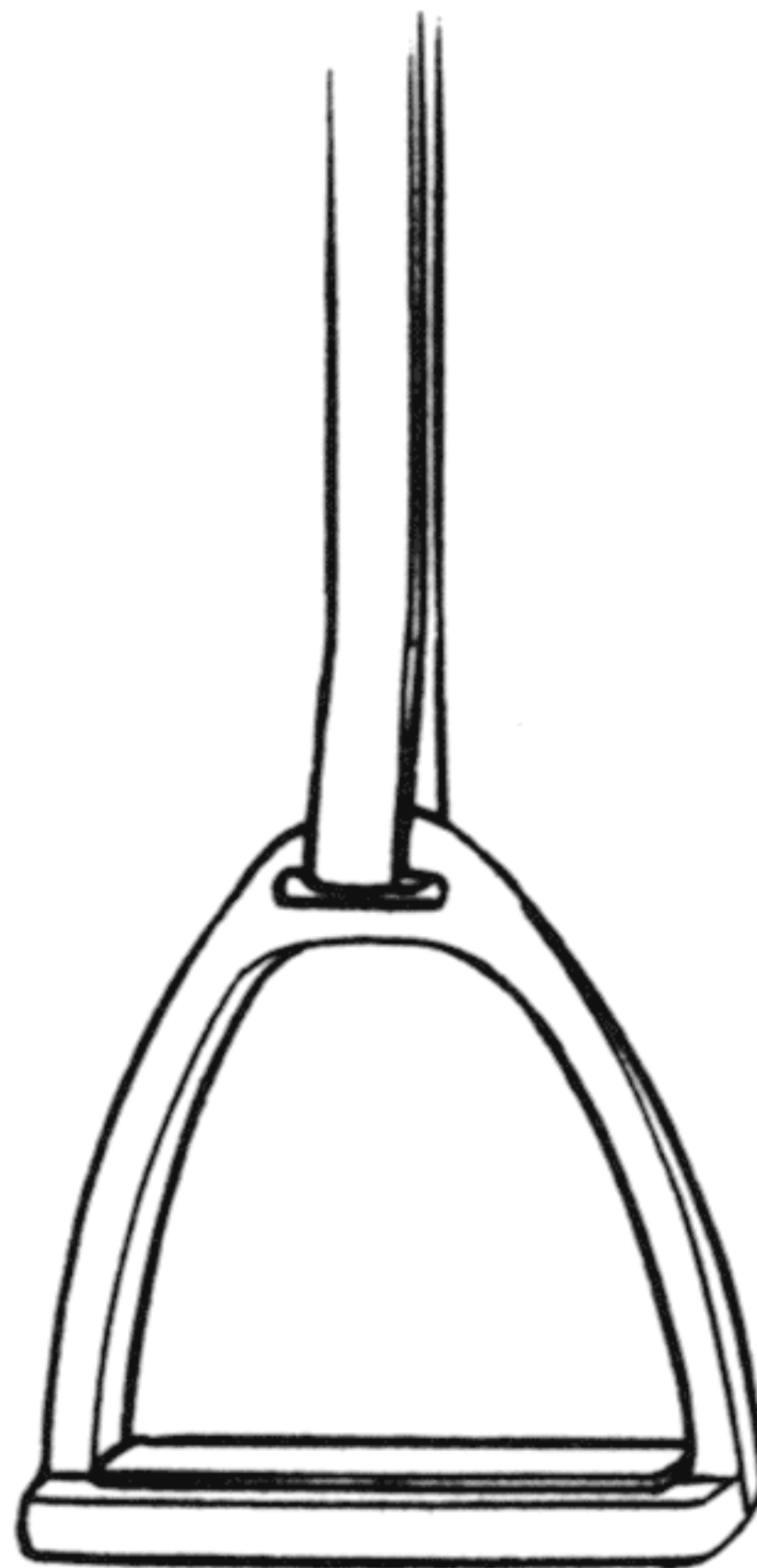
1

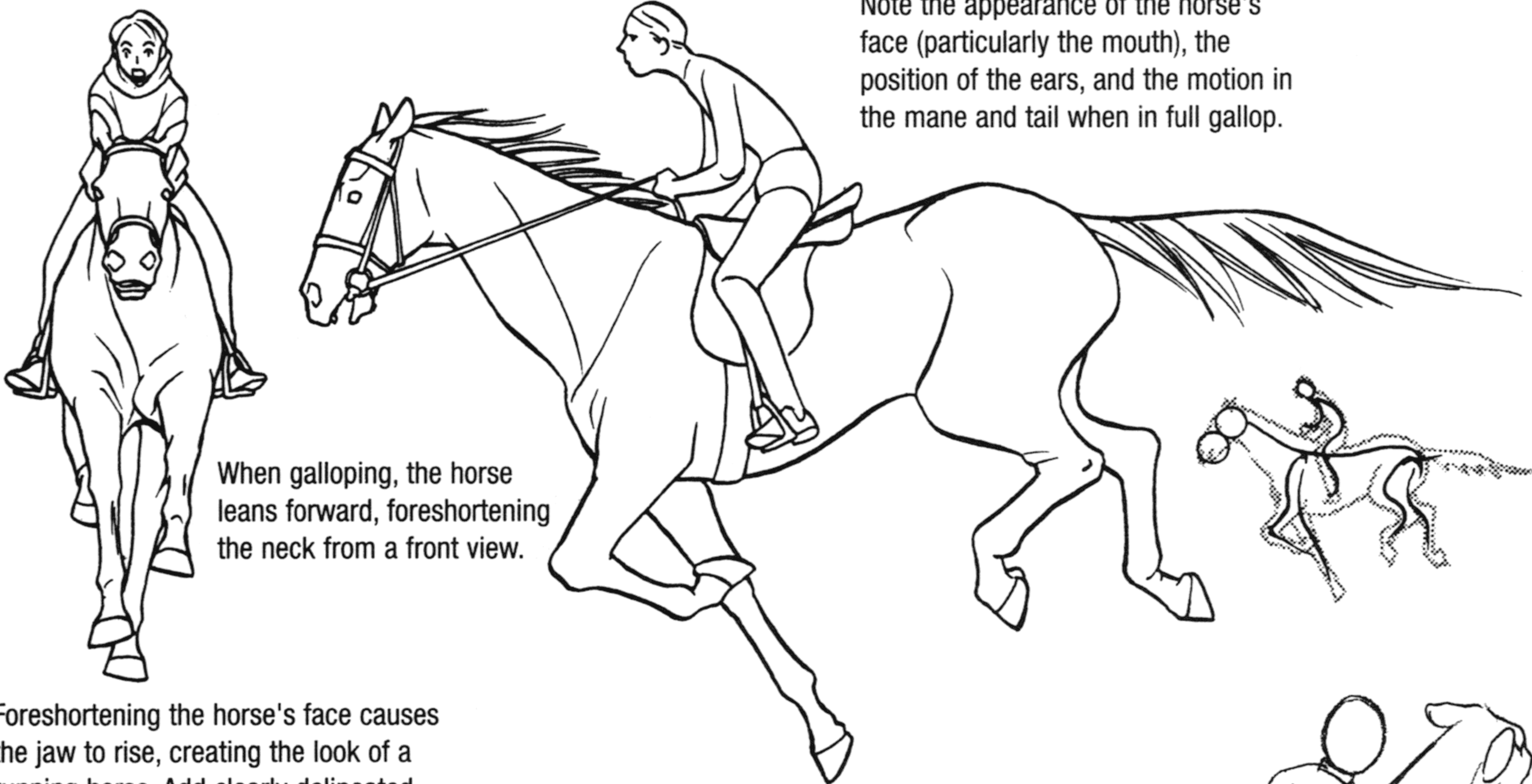
1.5

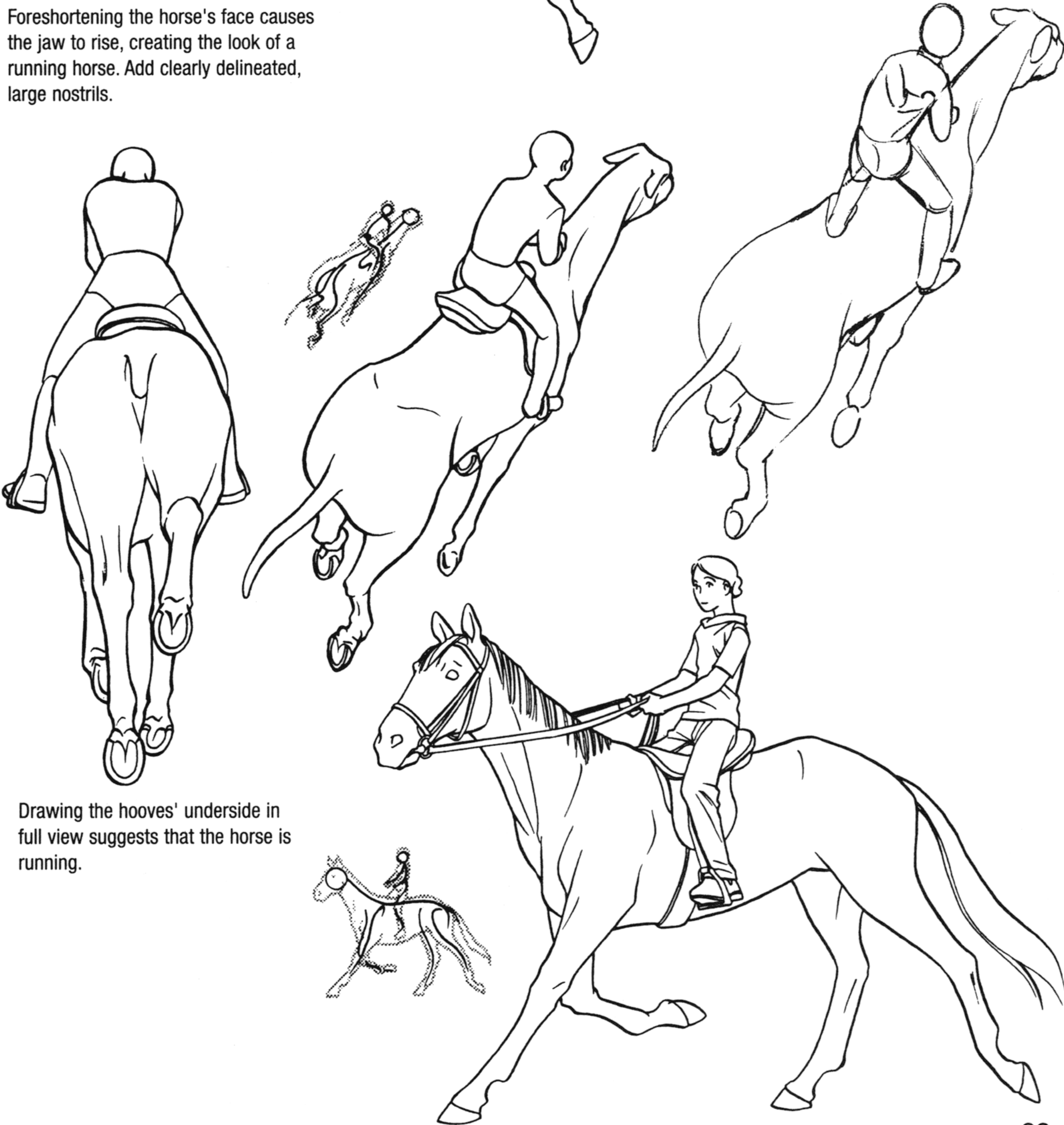
The legs are about 1.5 times the trunk's height.

Hoof

The same moment drawn from a side and bird's eye view

Position of the rider astride the horse

The horse's head typically obscures the rider up to the rider's chest.

The foot is inserted from the outside of the stirrup.

Bit

Saddle (for steeplechase or hurdle racing)

Stirrup

Note the appearance of the horse's face (particularly the mouth), the position of the ears, and the motion in the mane and tail when in full gallop.

When galloping, the horse leans forward, foreshortening the neck from a front view.

Foreshortening the horse's face causes the jaw to rise, creating the look of a running horse. Add clearly delineated, large nostrils.

Drawing the hooves' underside in full view suggests that the horse is running.

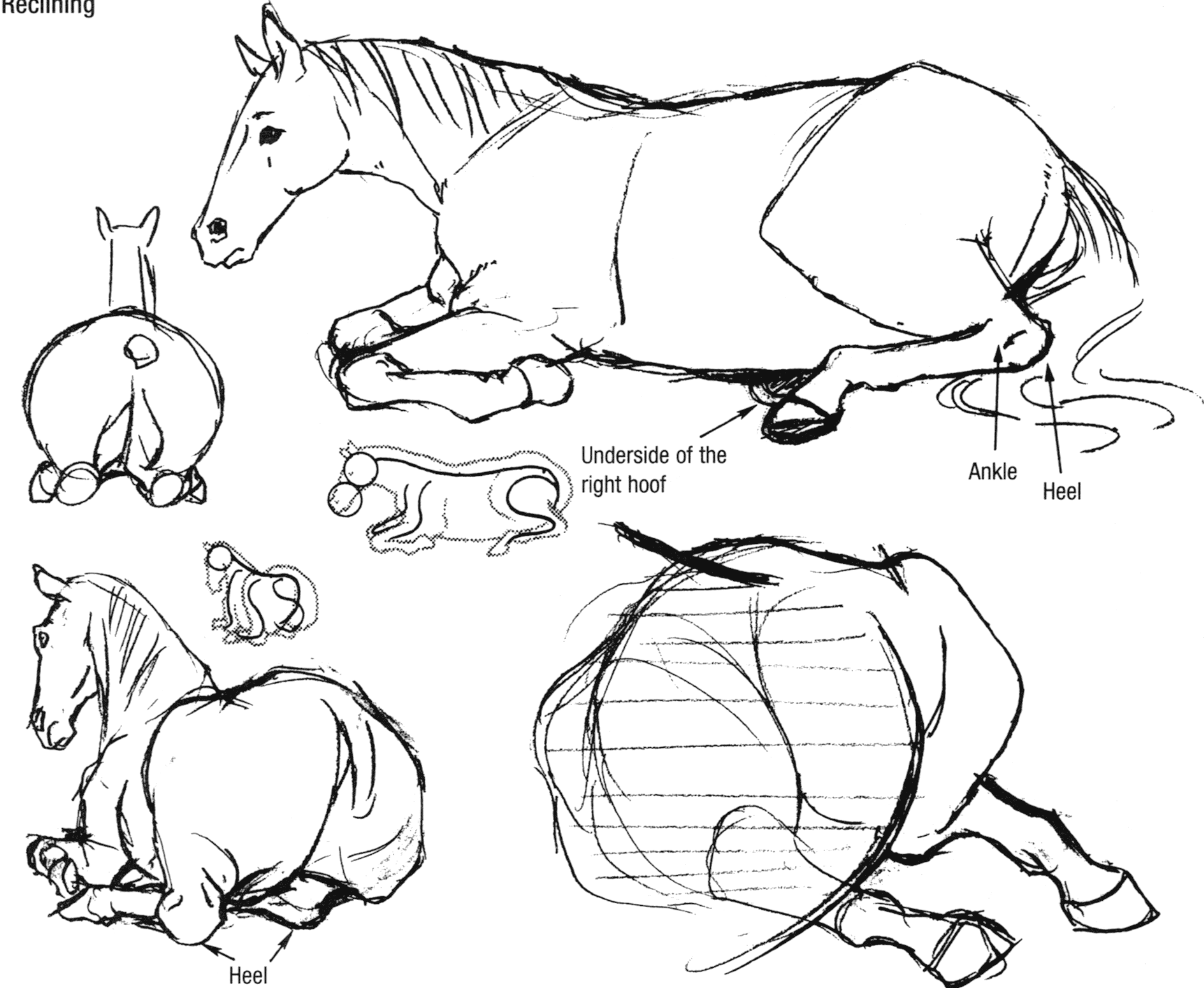
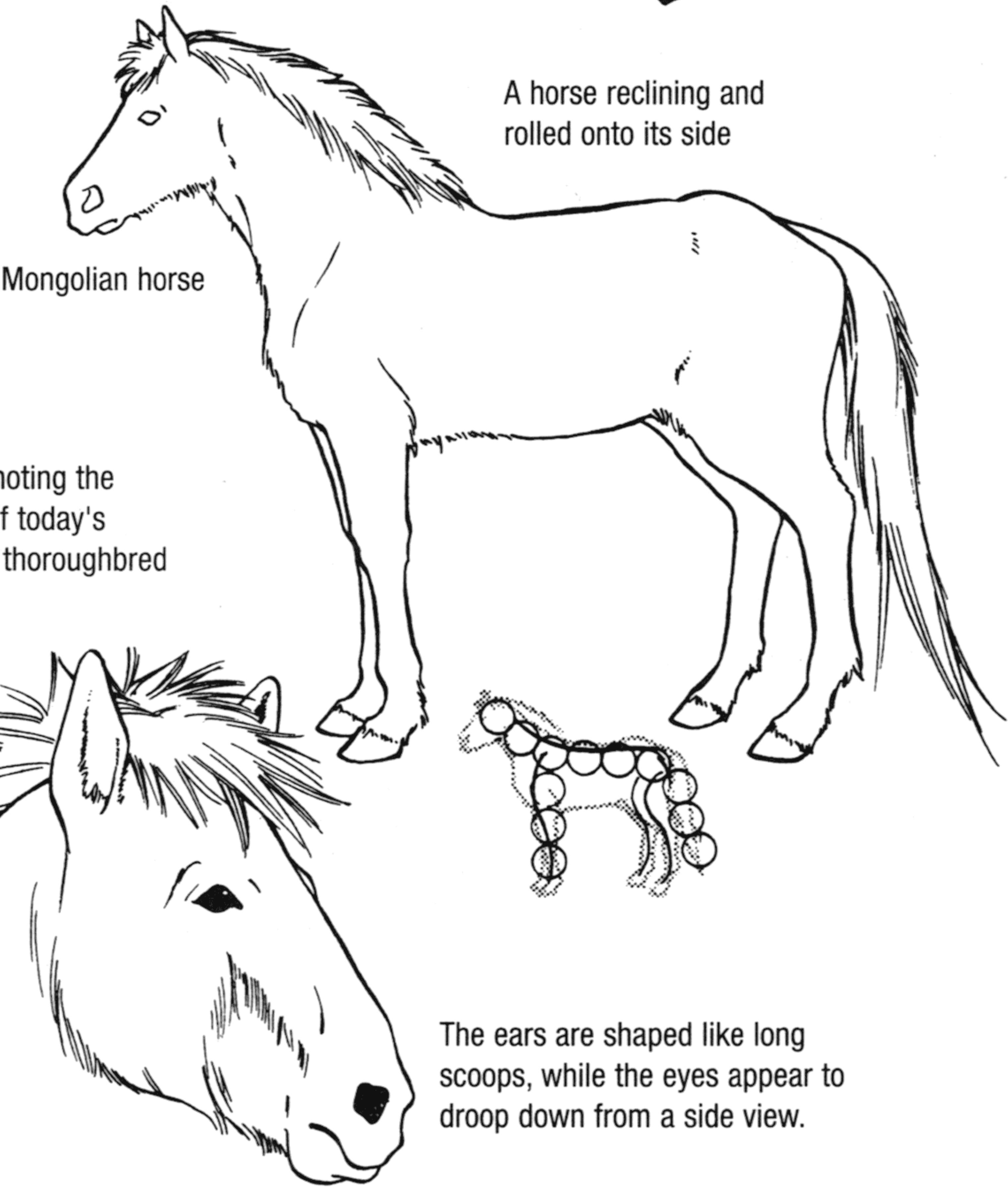
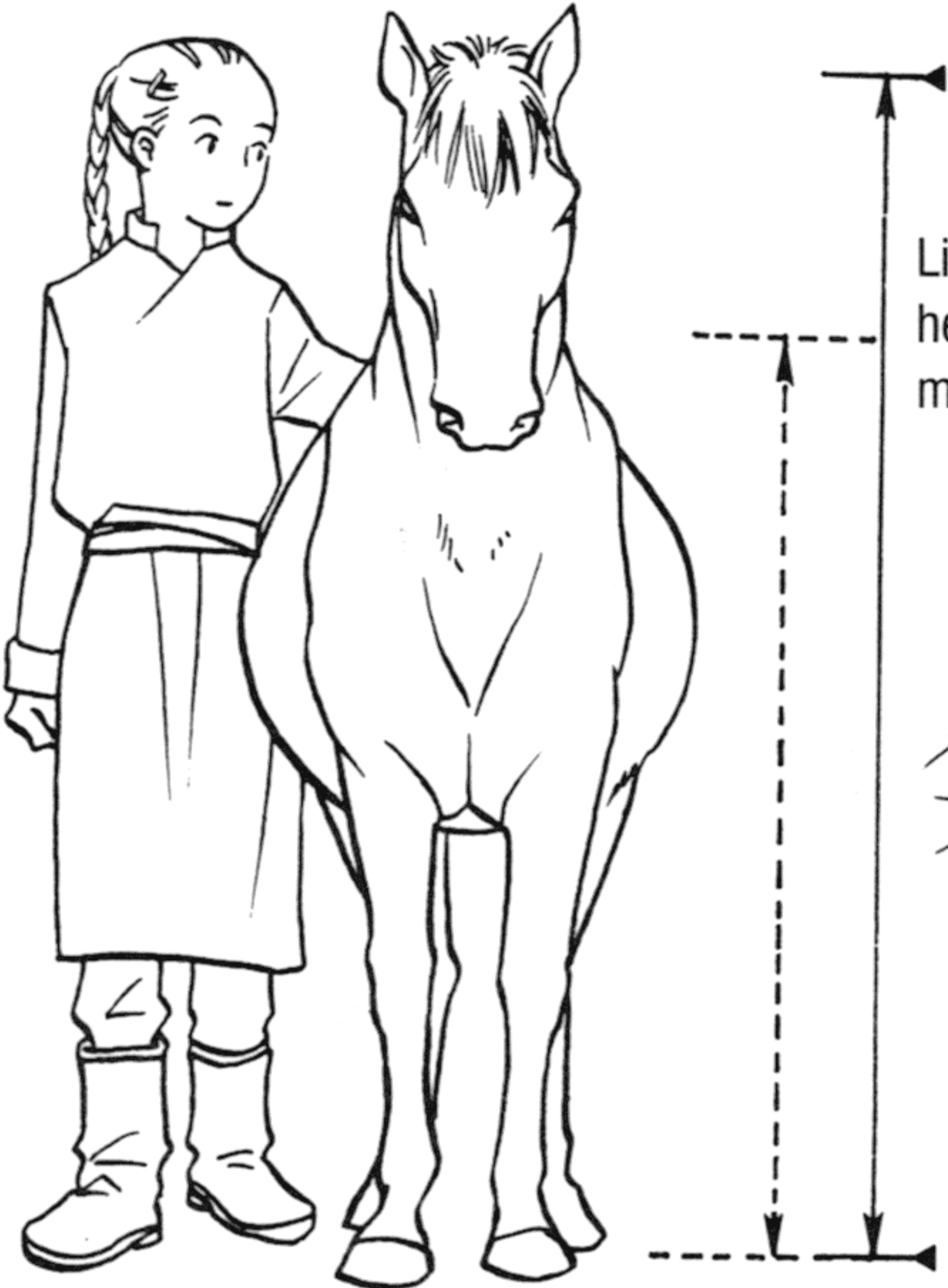
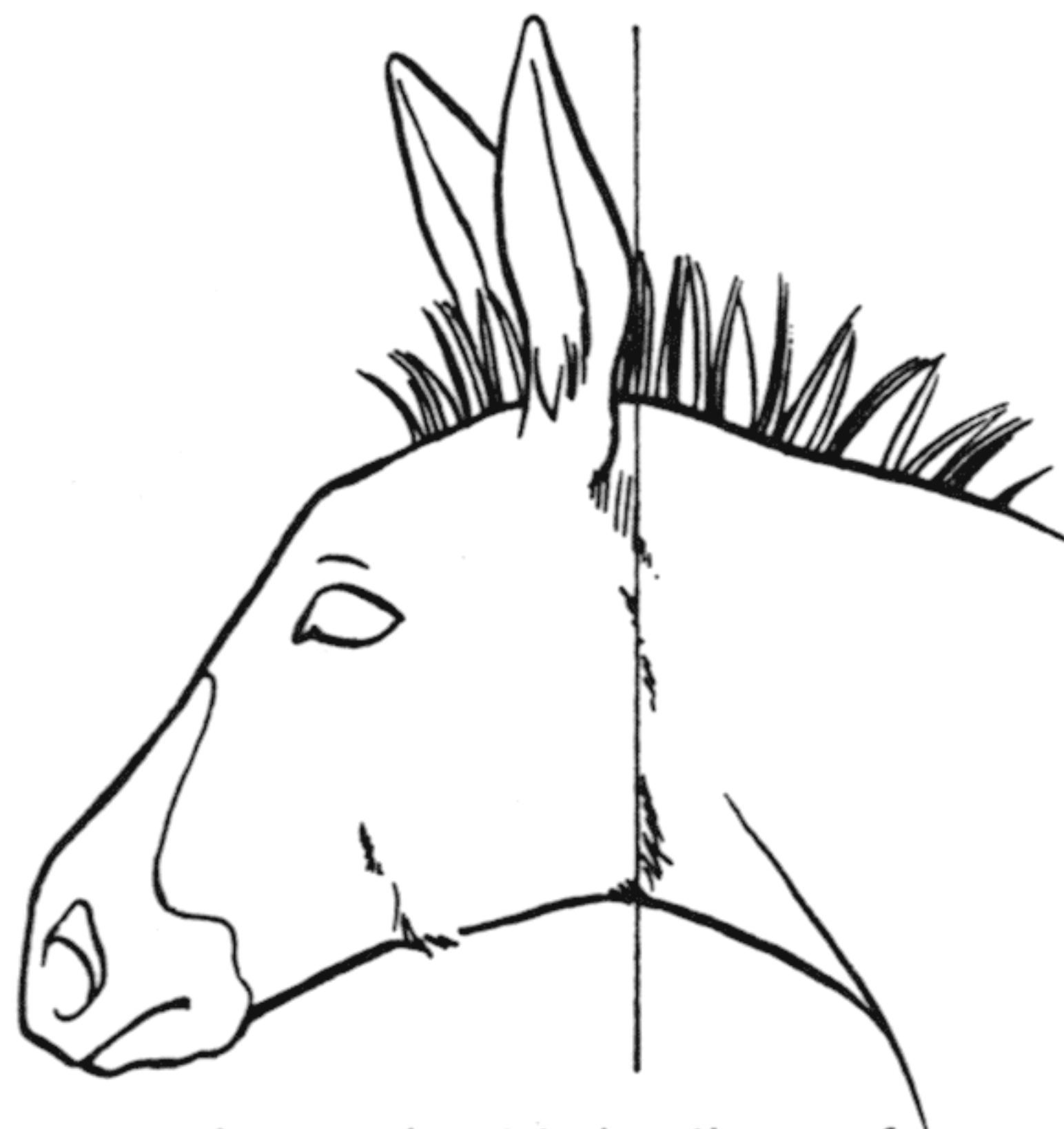
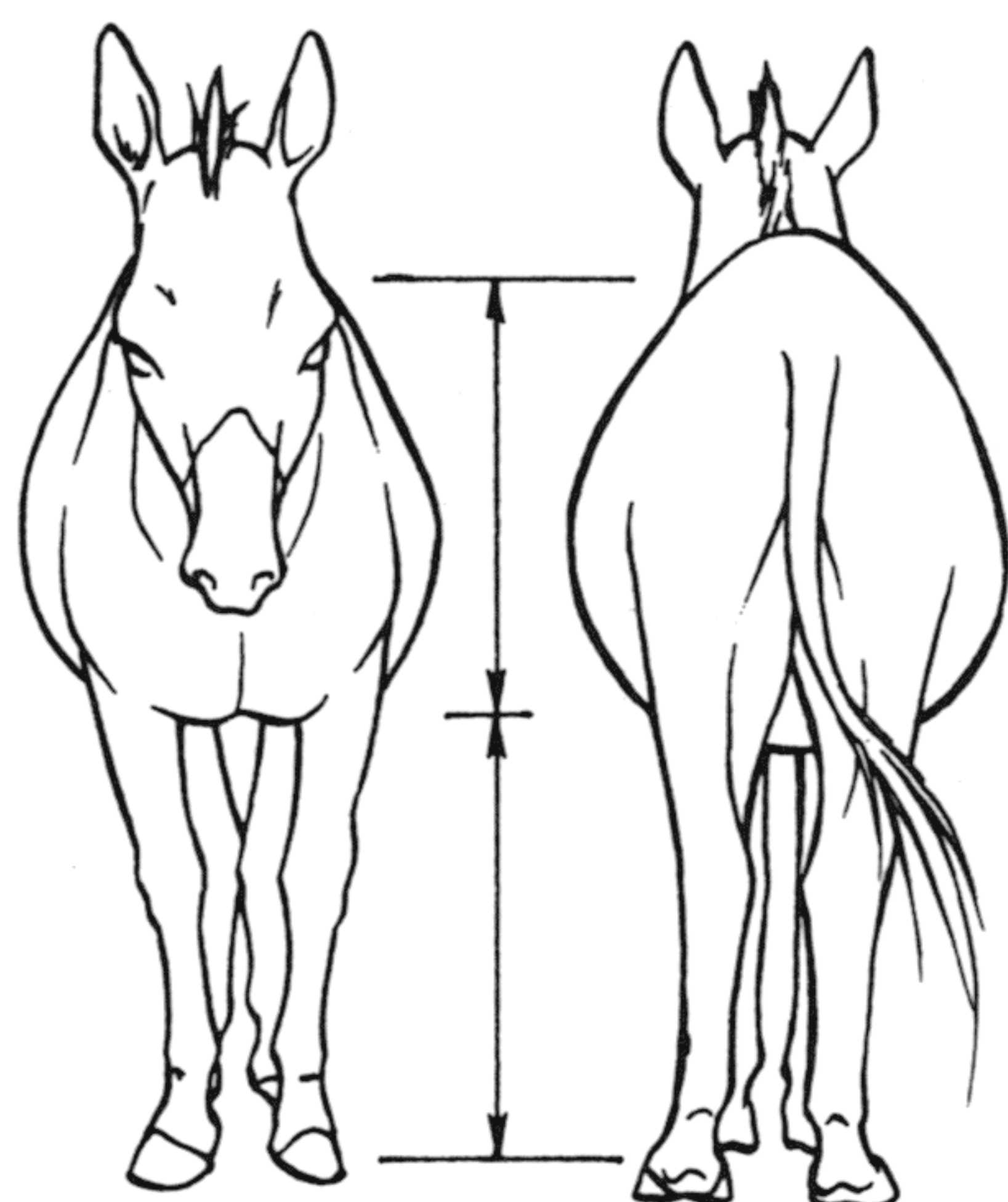
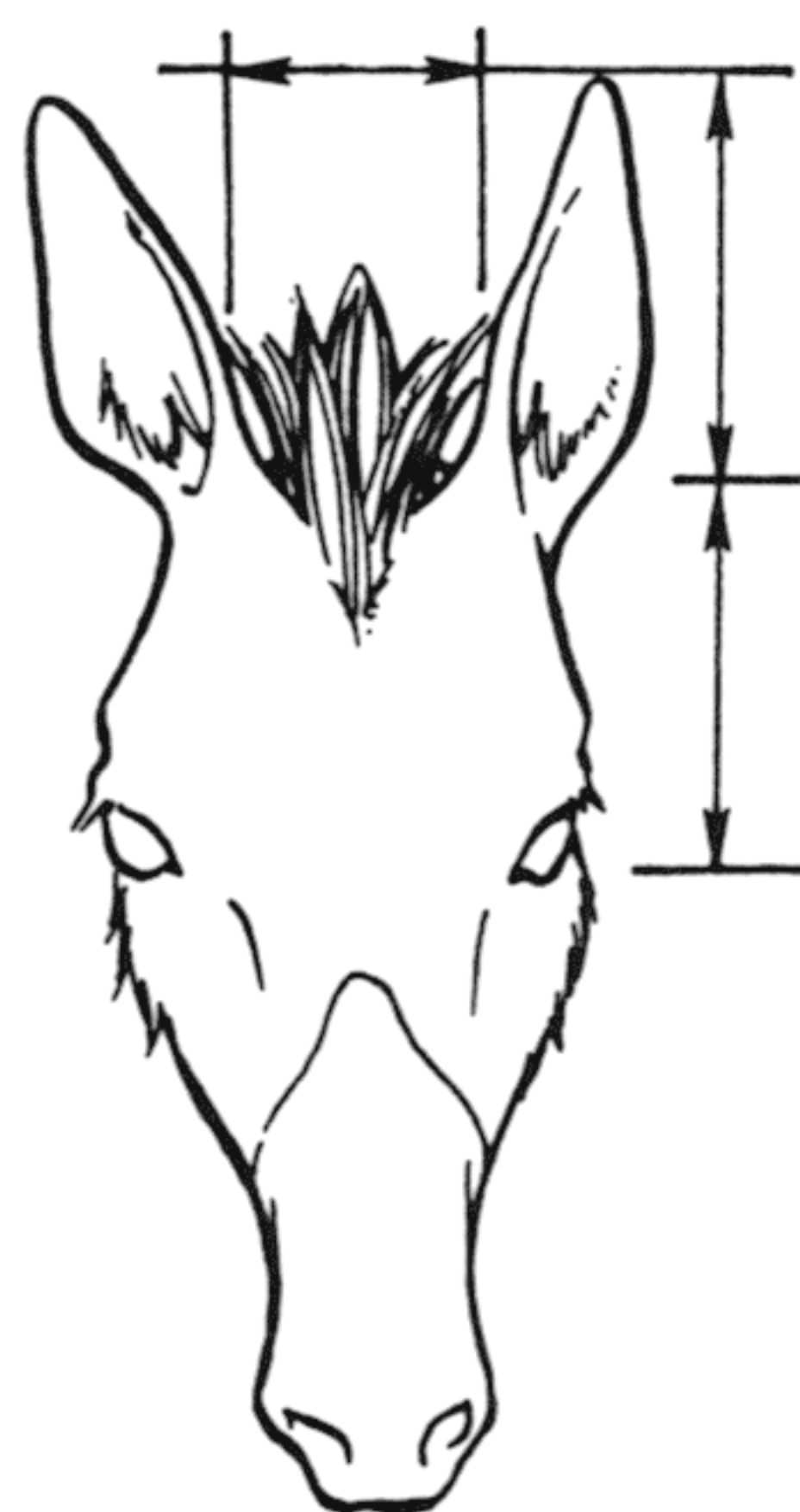
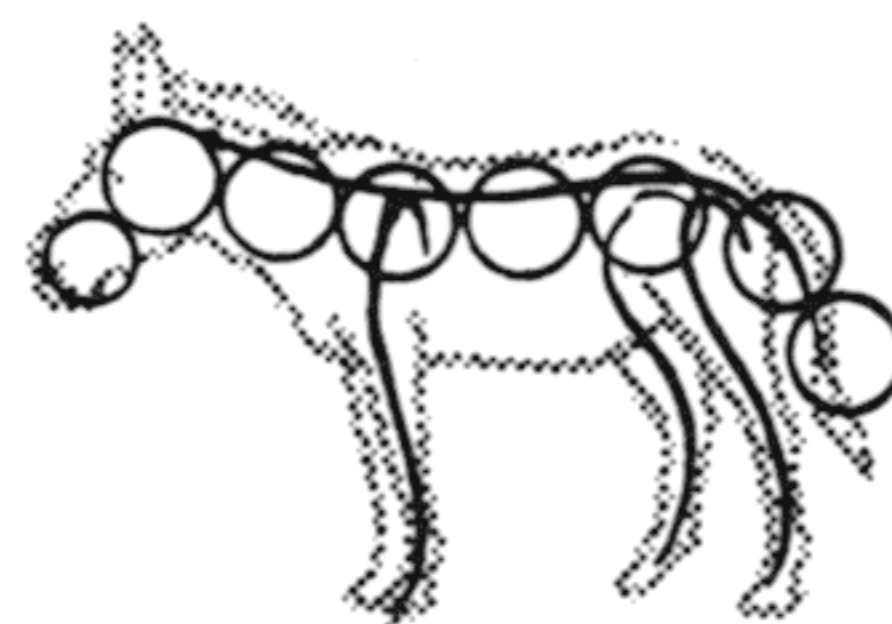
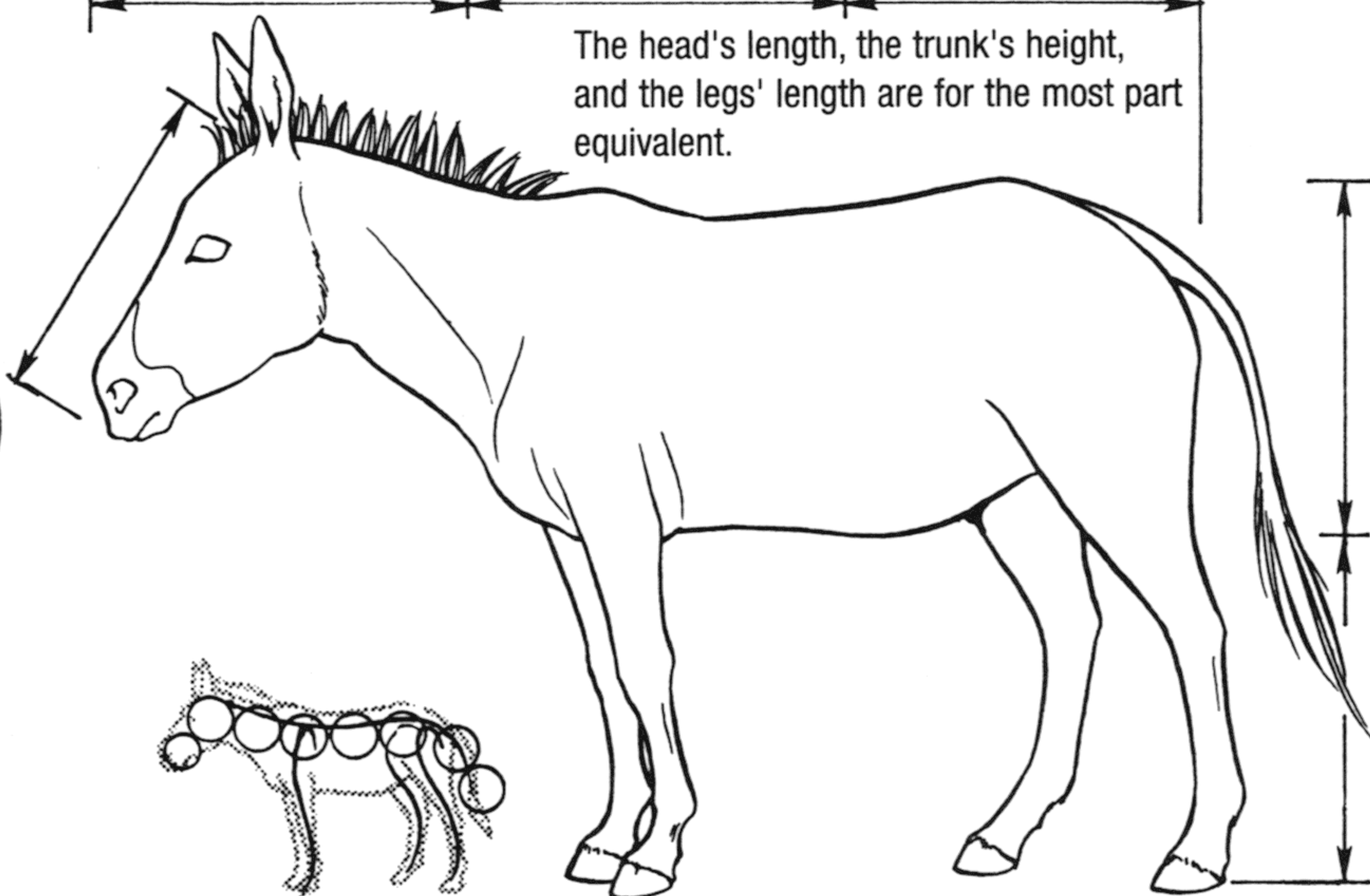
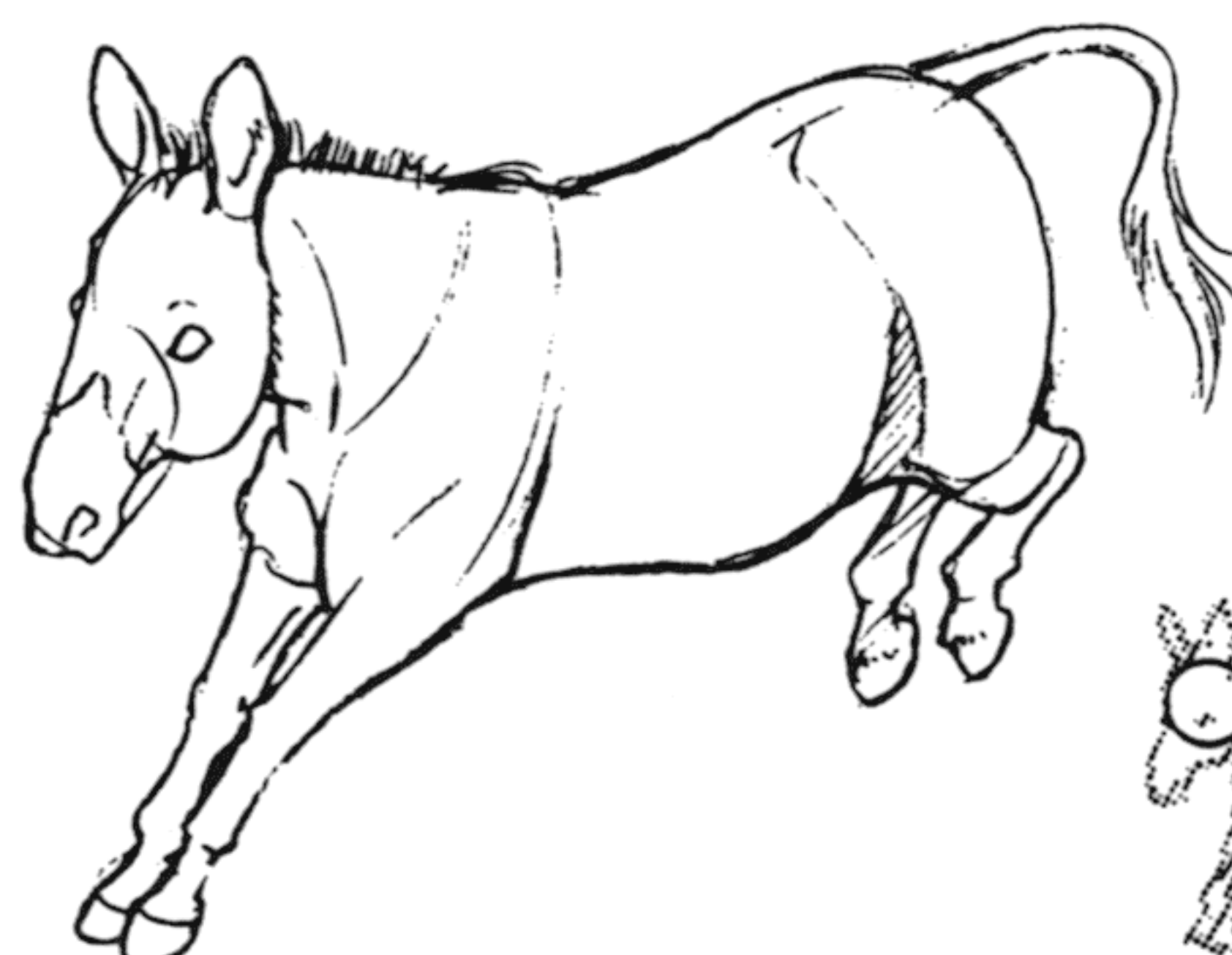
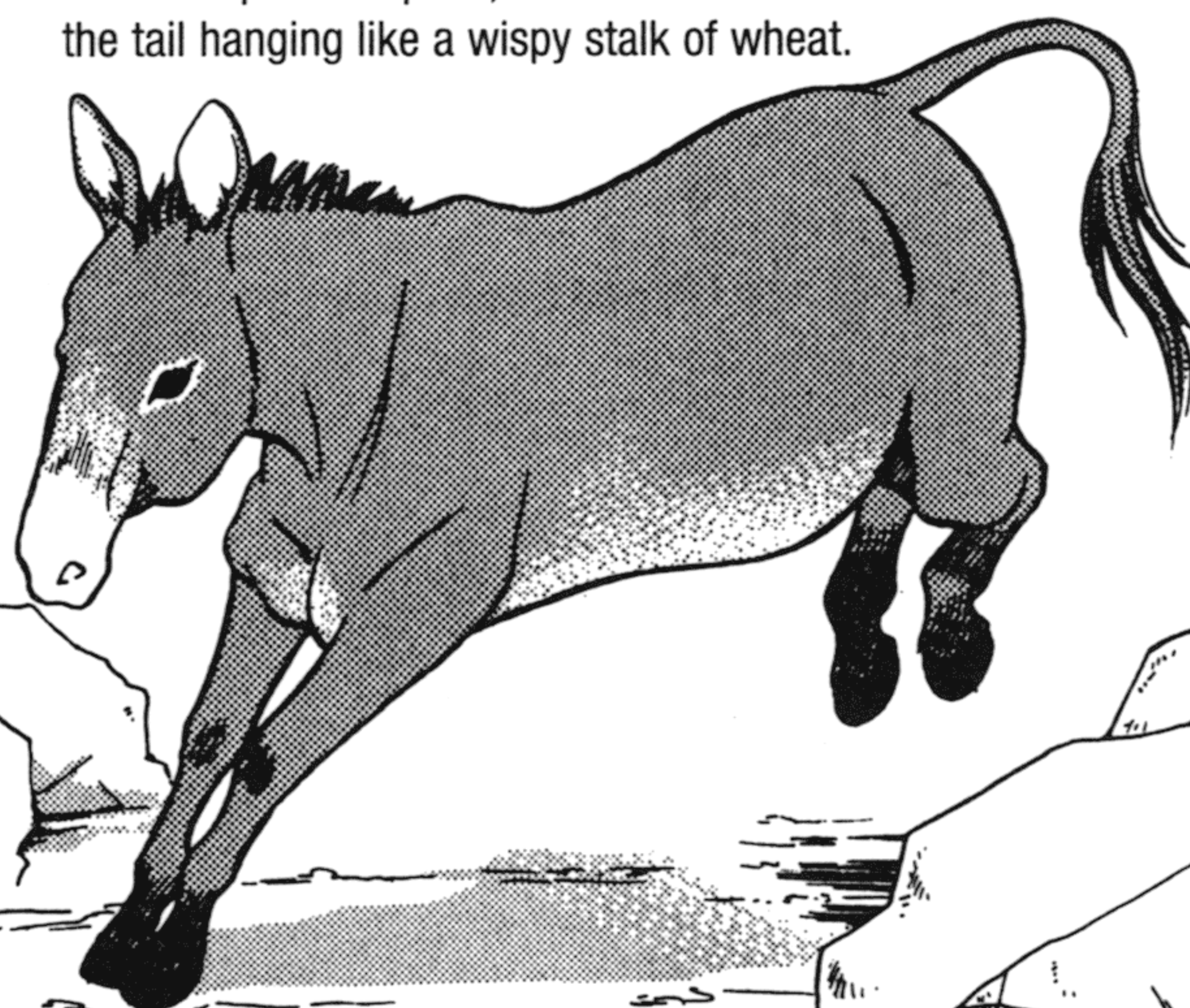
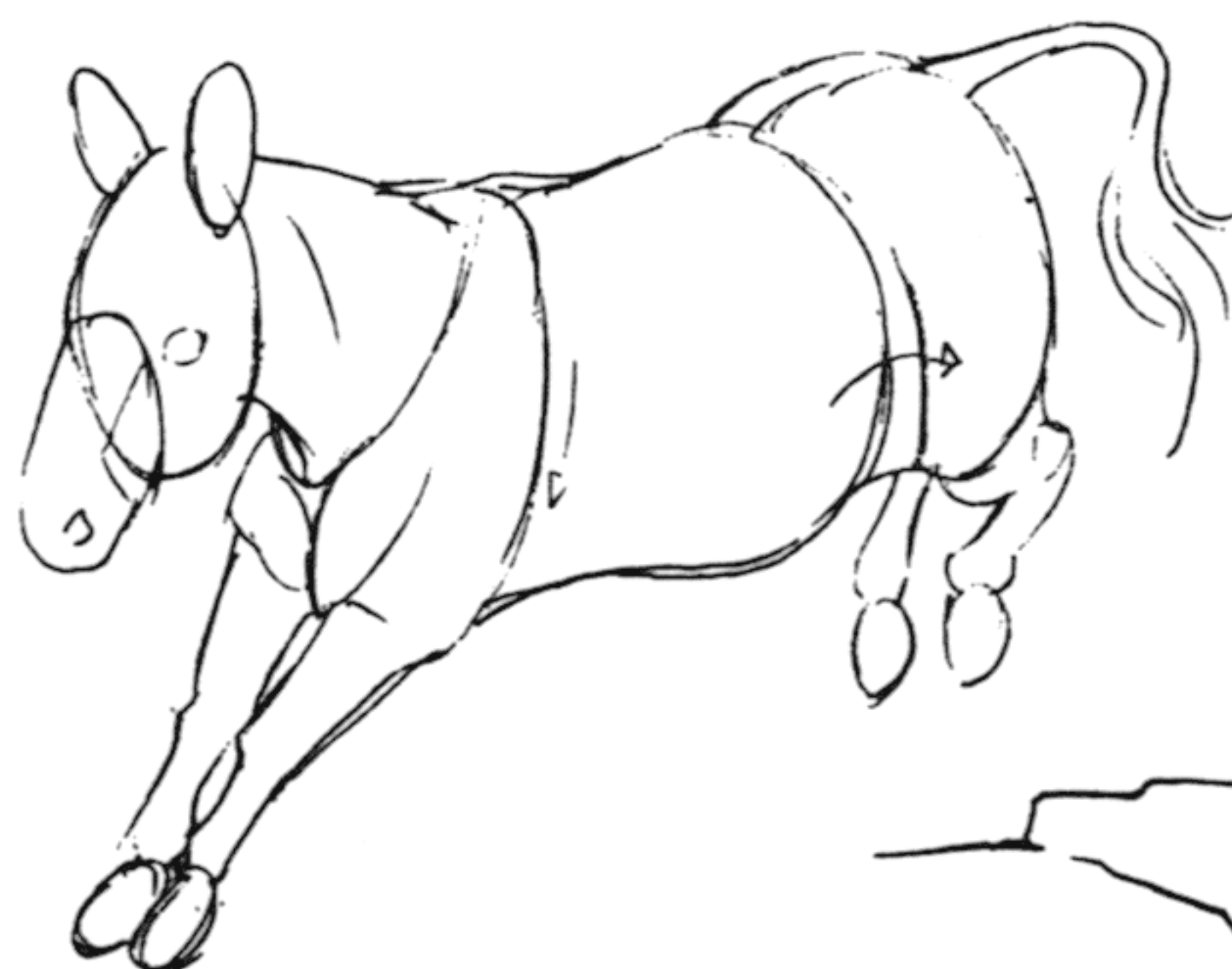



Fig. Showing Horse Similar to the Ancestor of the Modern Horse

Ancient horses were smaller and heavier built than today's domestic thoroughbred.

Donkeys

The distance between the ears is the same as the snout's width.

The distance from the eye to the base of the ear should be equal to the height of the ear itself.

The mane grows straight up. I recommend drawing it in clusters leaving space to the right and left of each tuft.

The ears are large, about twice those of a horse. The head is also large, occupying about 1/4 of the figure's total length (head-to-body ratio of 1:4).

The head's length, the trunk's height, and the legs' length are for the most part equivalent.

In this stop-action pose, we see the end of the tail hanging like a wispy stalk of wheat.

Cattle

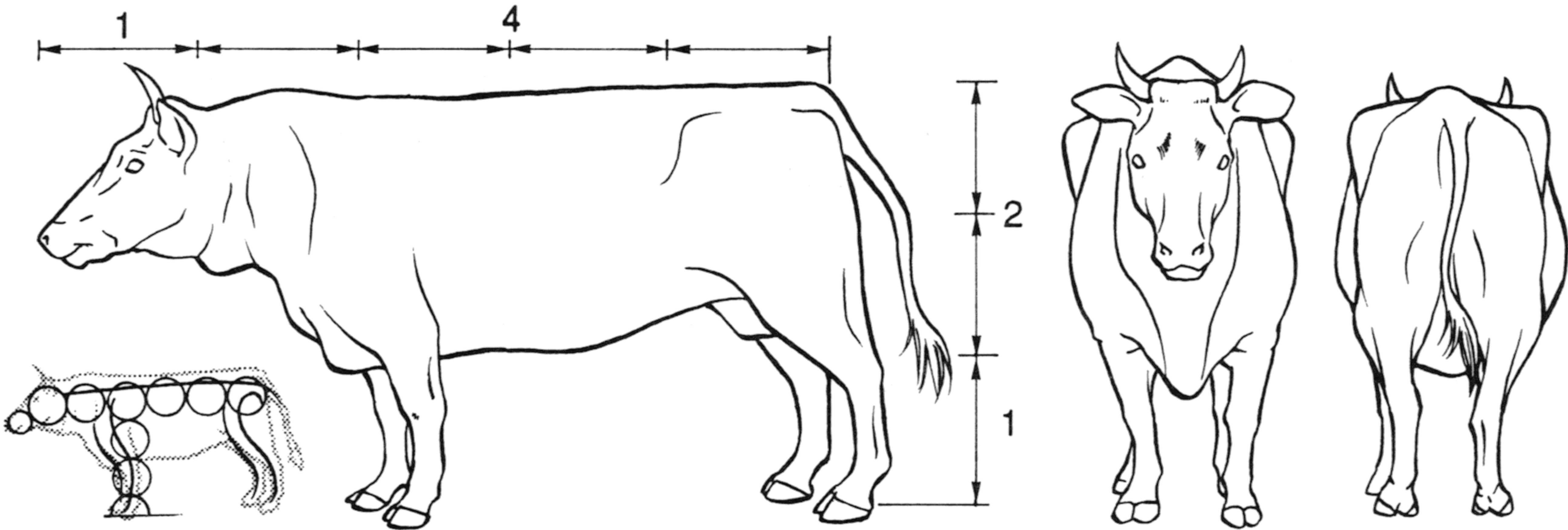
Add wrinkles to the neck, the shoulder, and the legs to project a sense of sturdiness.

The length of each ear jutting out to the side is the same as the forehead's width.

1

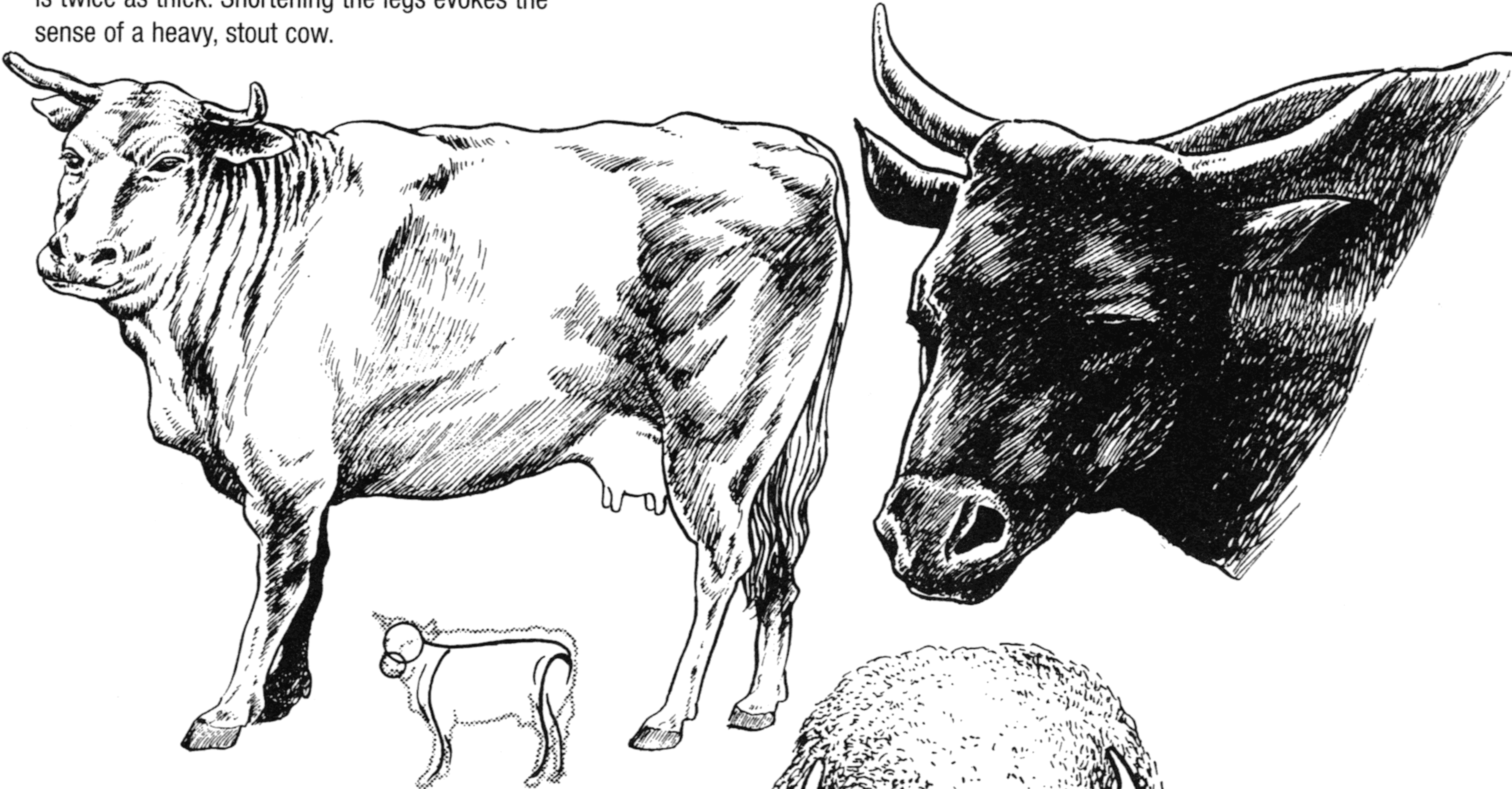
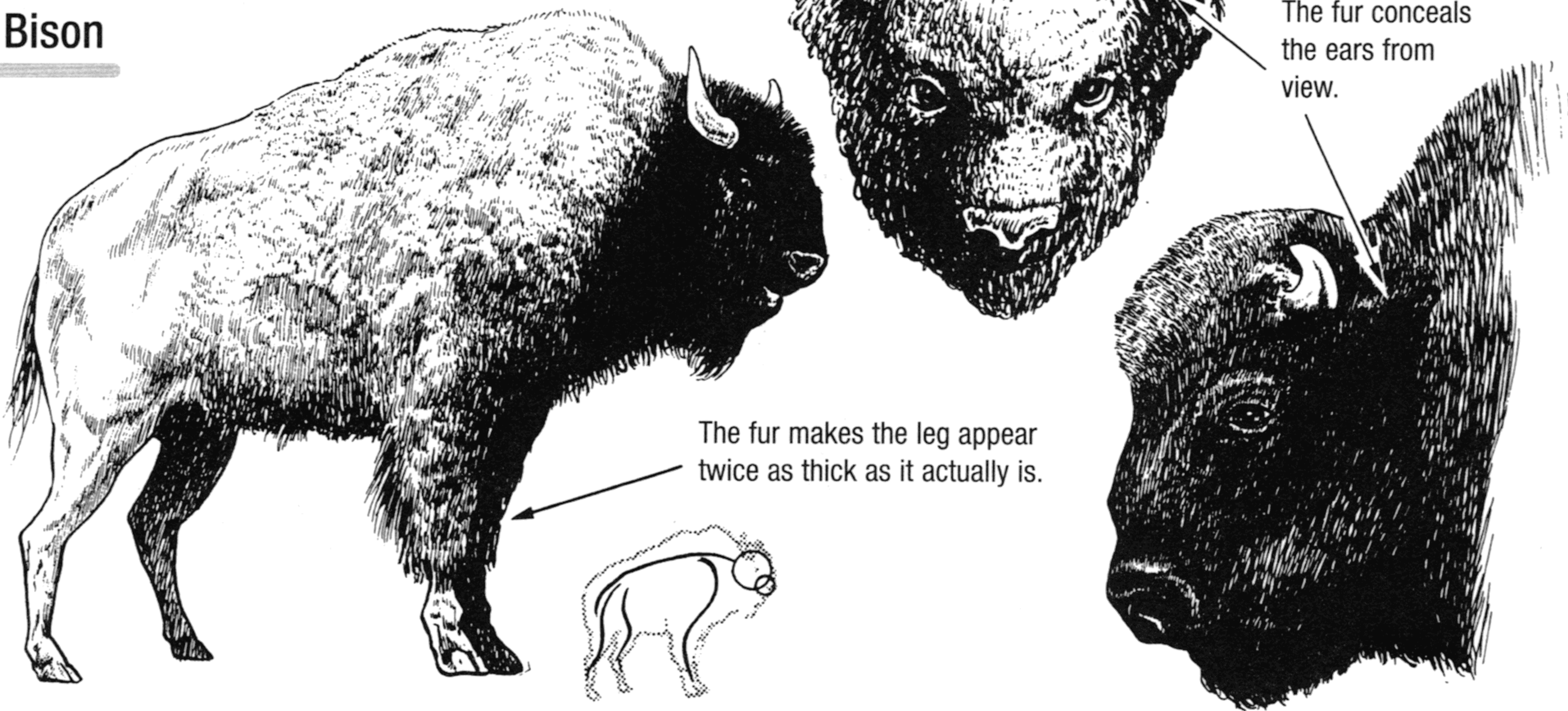
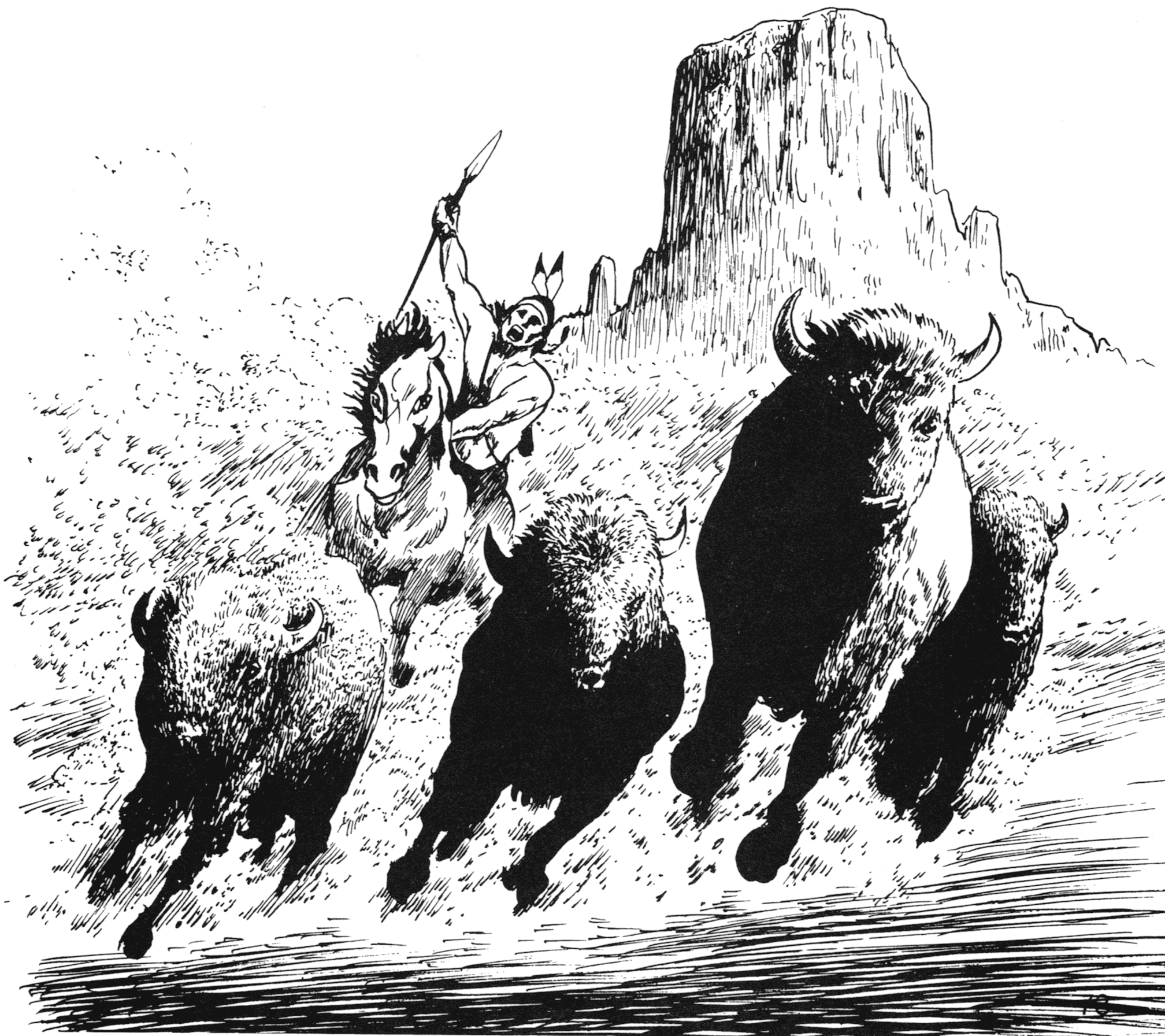
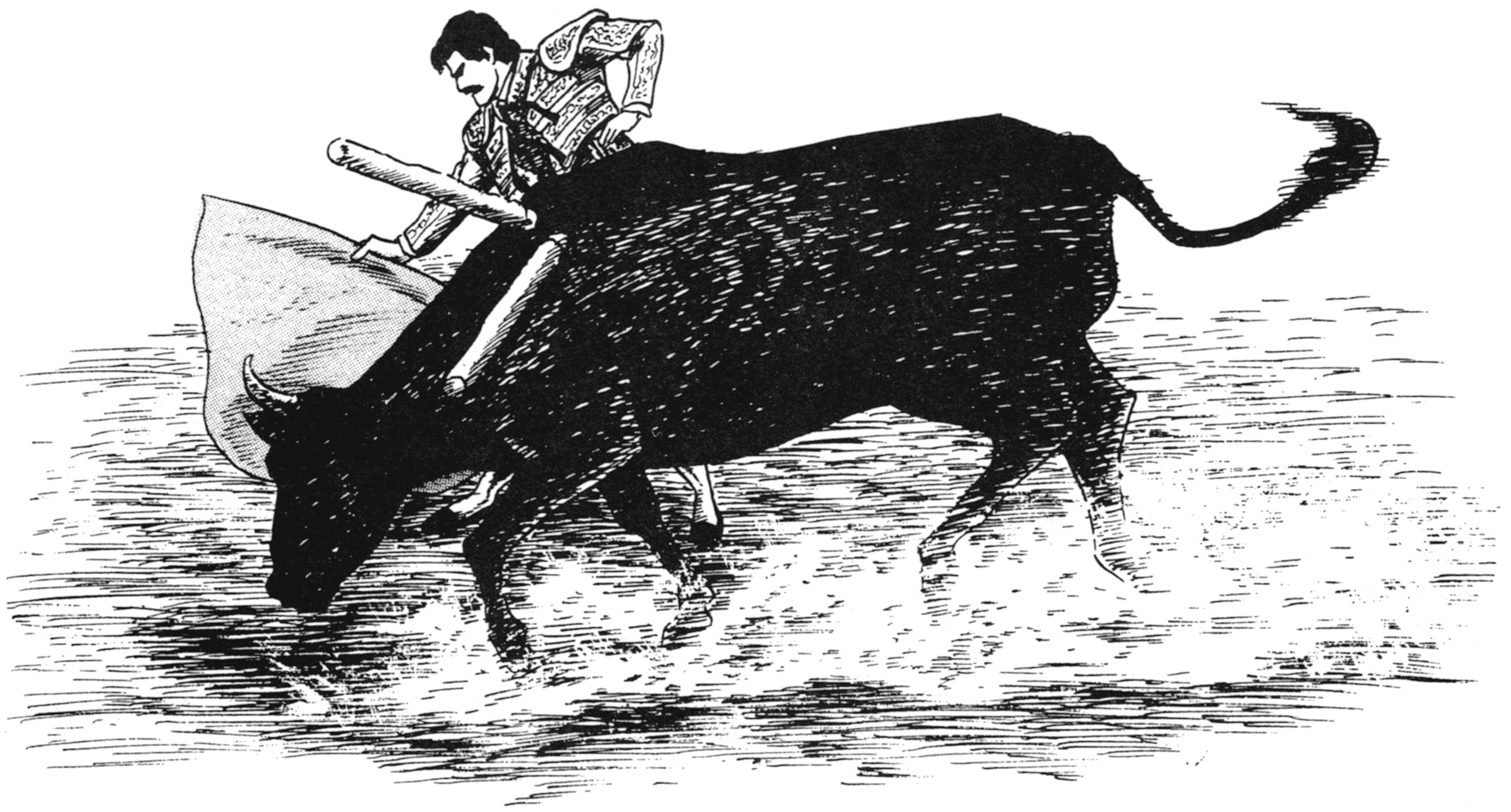
4

2

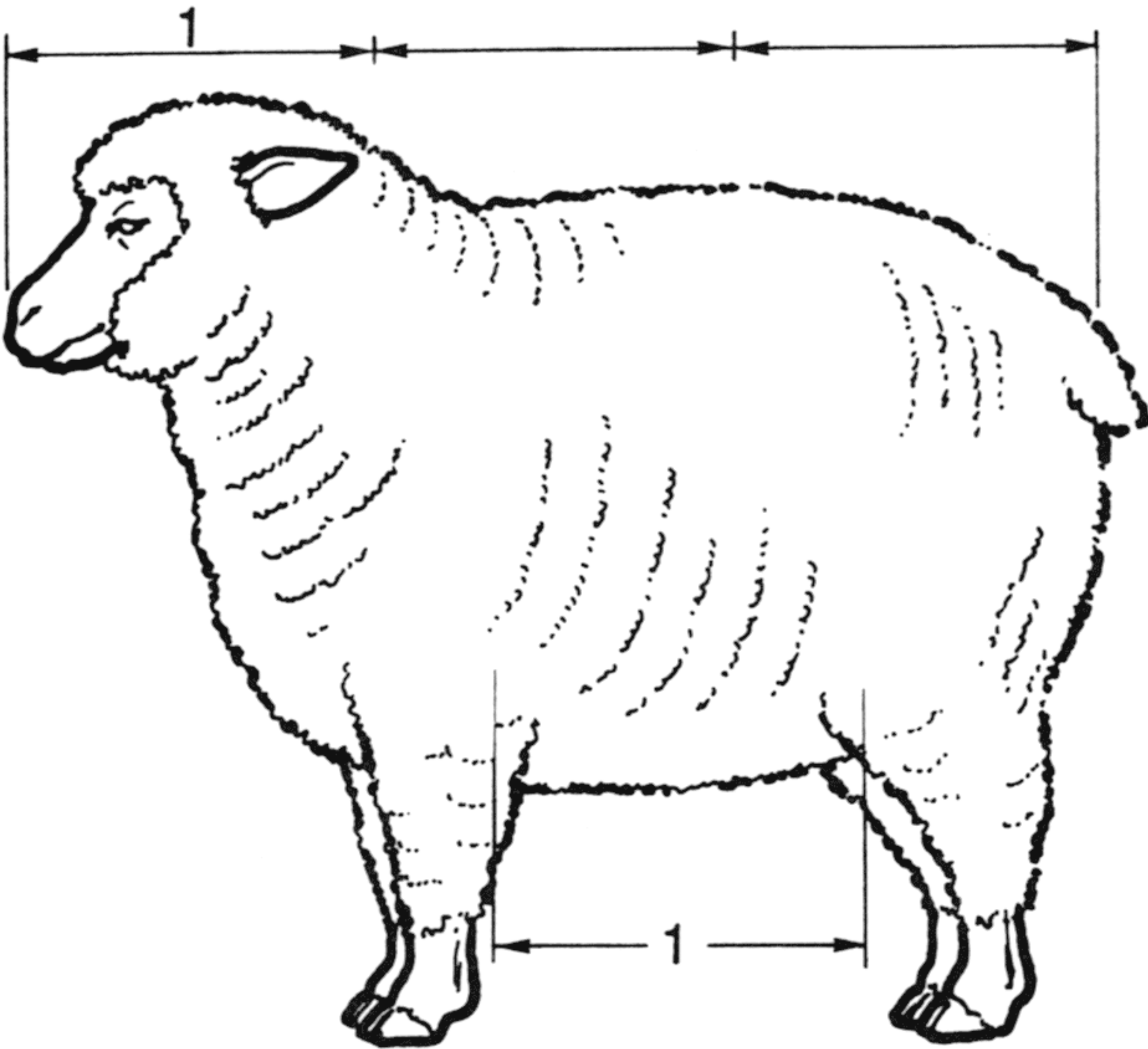
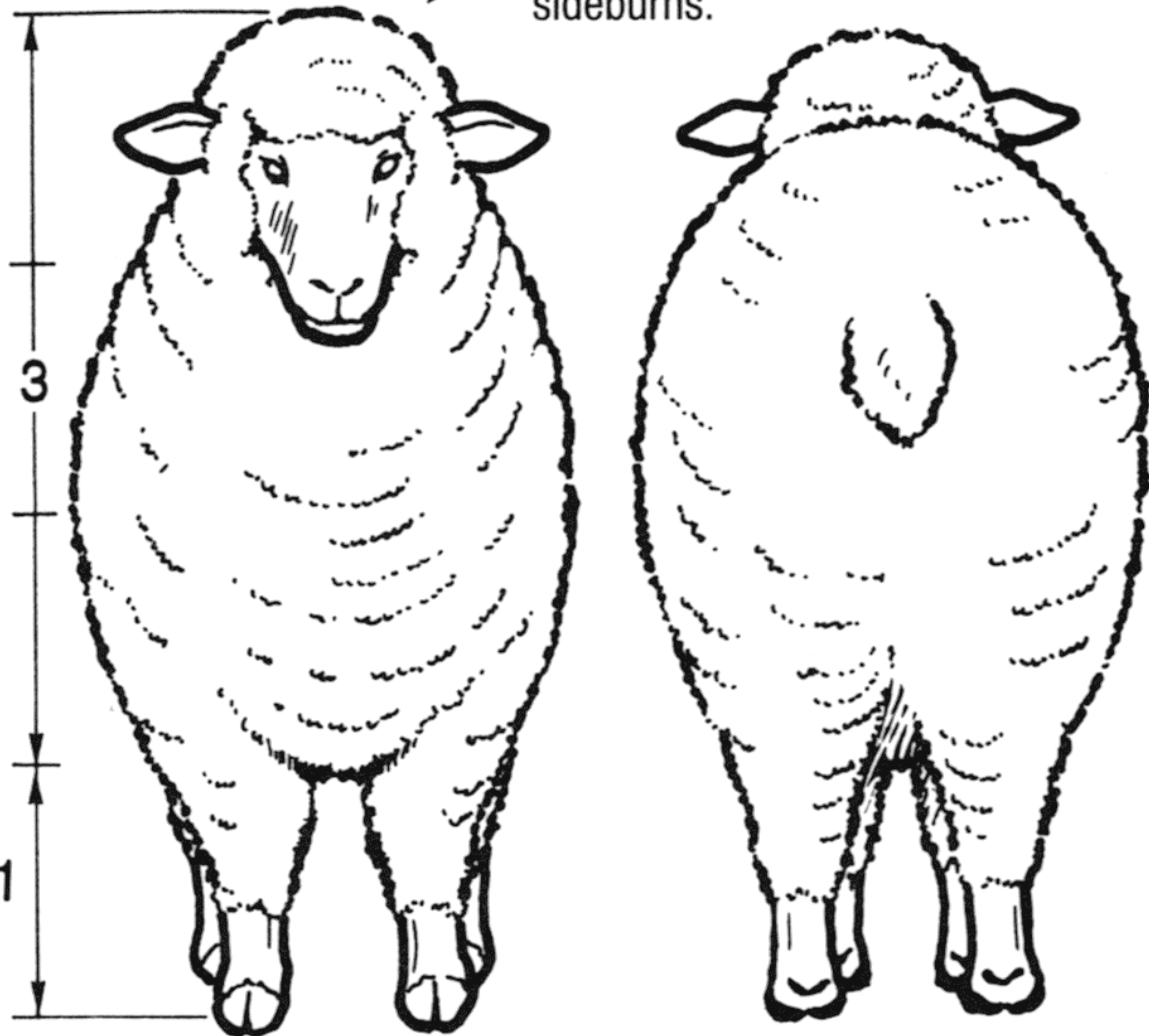
1

The trunk is four times the length of the head, and is twice as thick. Shortening the legs evokes the sense of a heavy, stout cow.

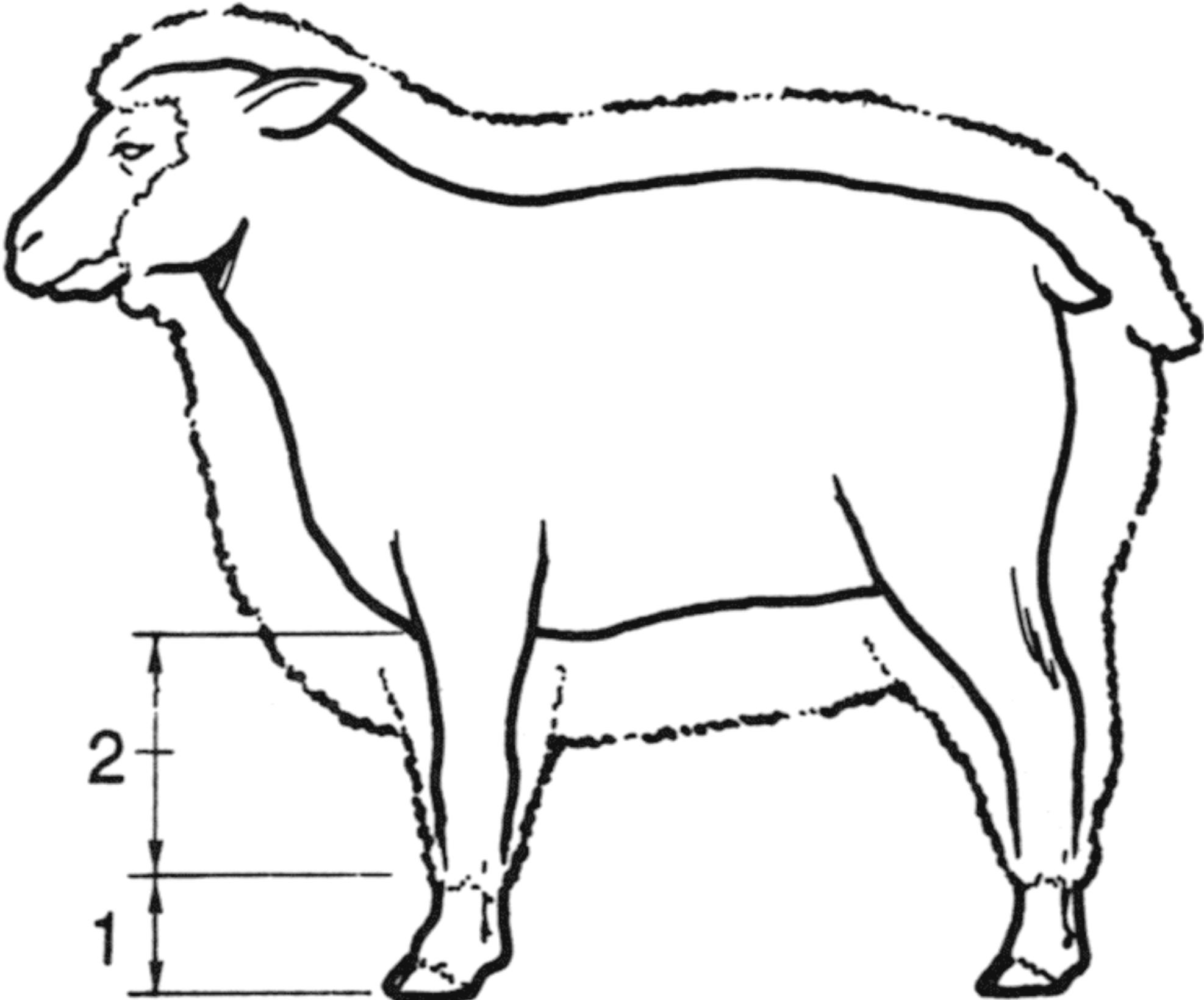
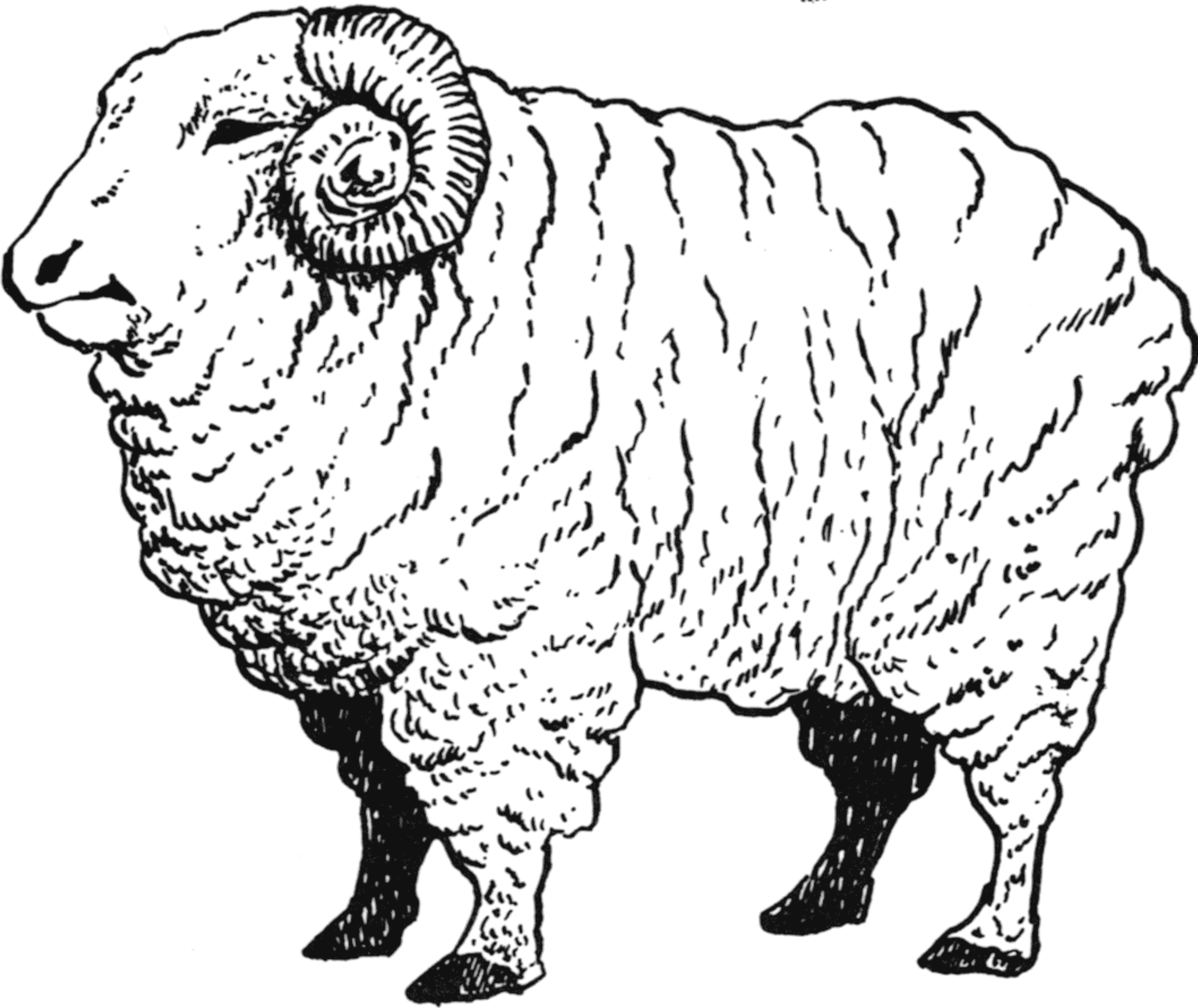
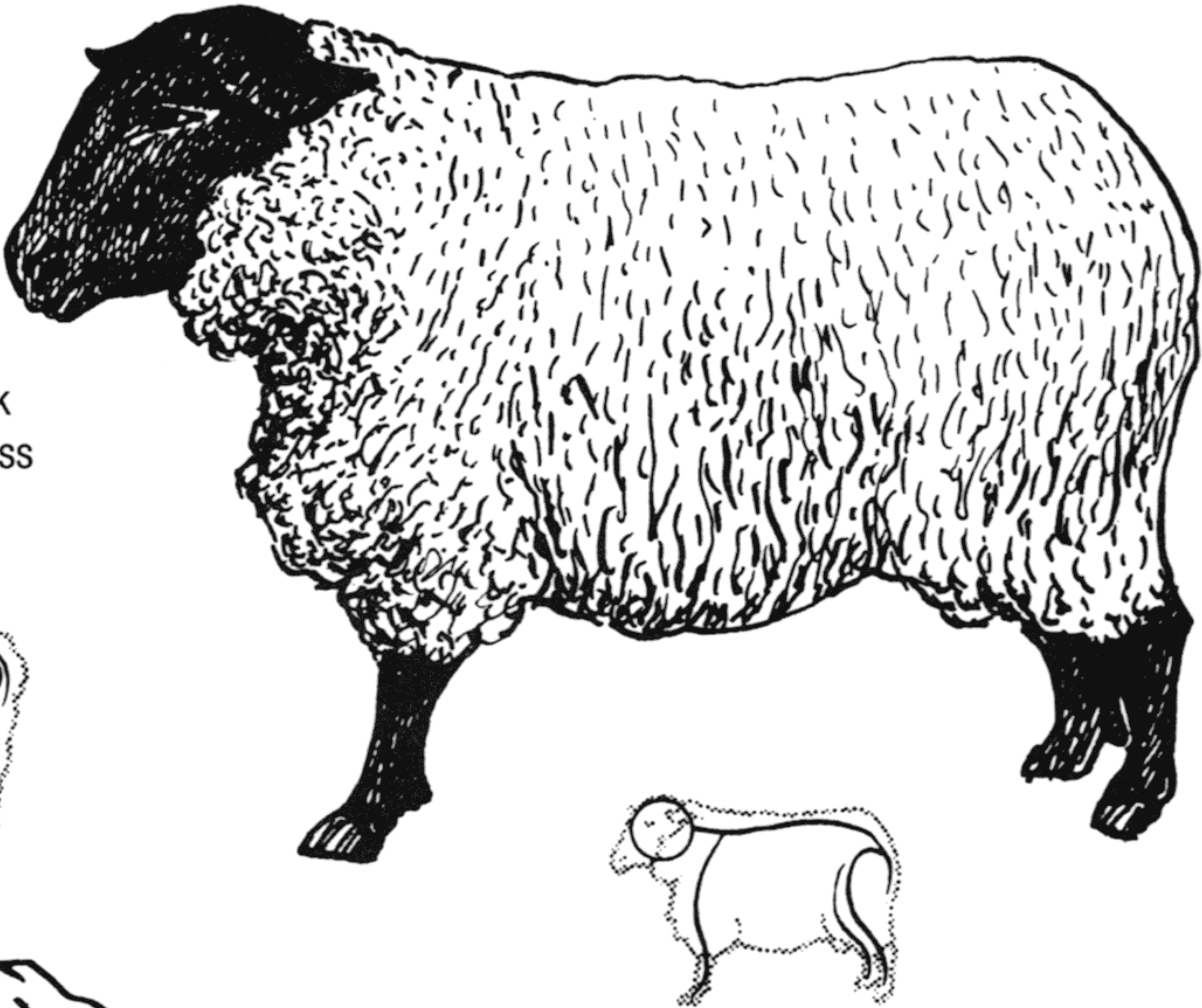
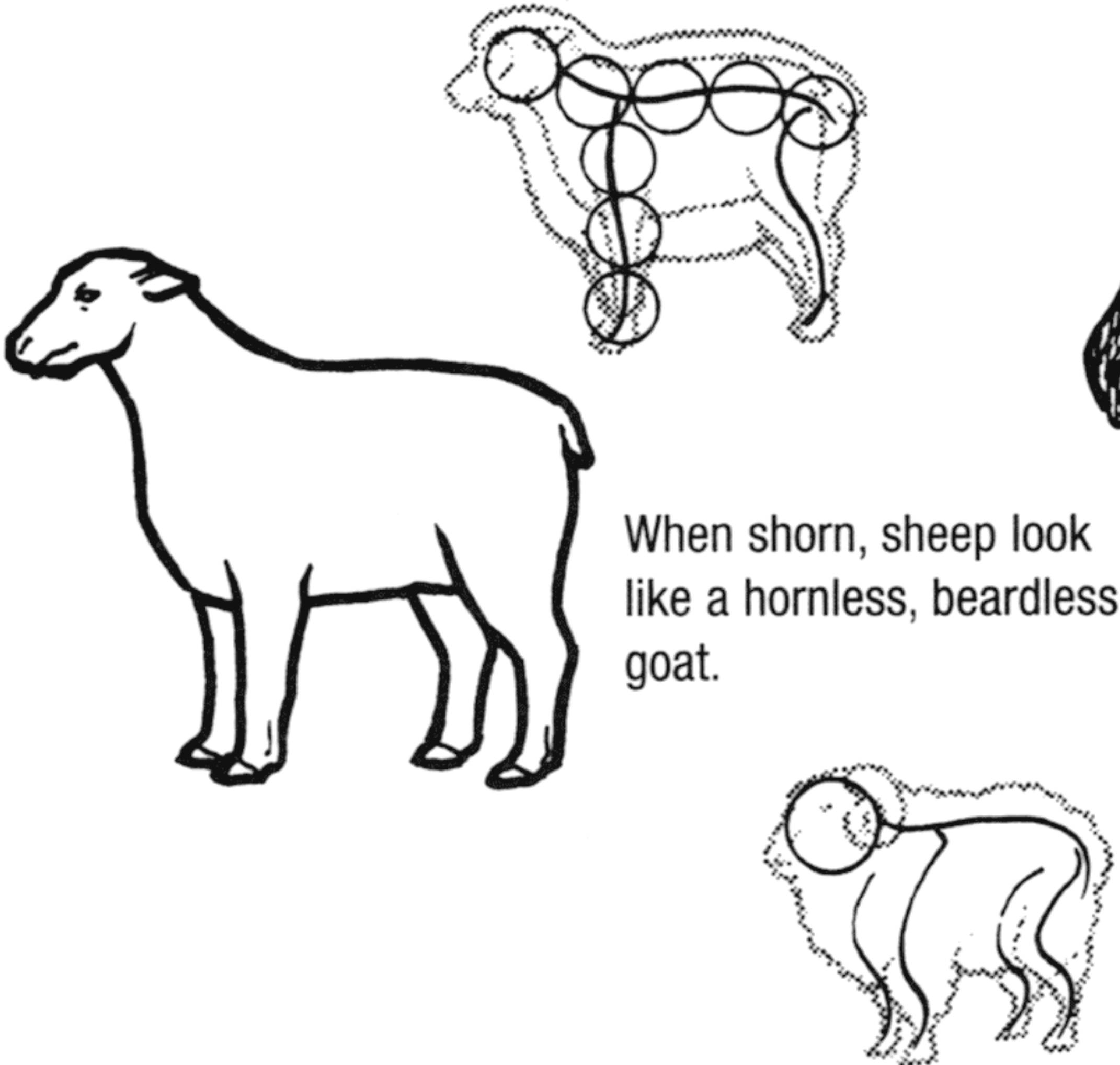
Bison

The fur conceals the ears from view.

The fur makes the leg appear twice as thick as it actually is.

Sheep

Since sheep are covered in soft wool, I recommend drawing the figure with gently rounded surfaces. The trick here is to keep the distance between the eyes and the nose on the long side to suggest a flattish face.

From the front, the face appears an inverted triangle with a round "Bob" style haircut and sideburns.

The front and back legs should be spaced about one head apart.

The wool covering the figure makes the legs appear short—about 1/4 of the total height.

When shorn, sheep look like a hornless, beardless goat.

1/3 of the leg is covered in wool.

Goats

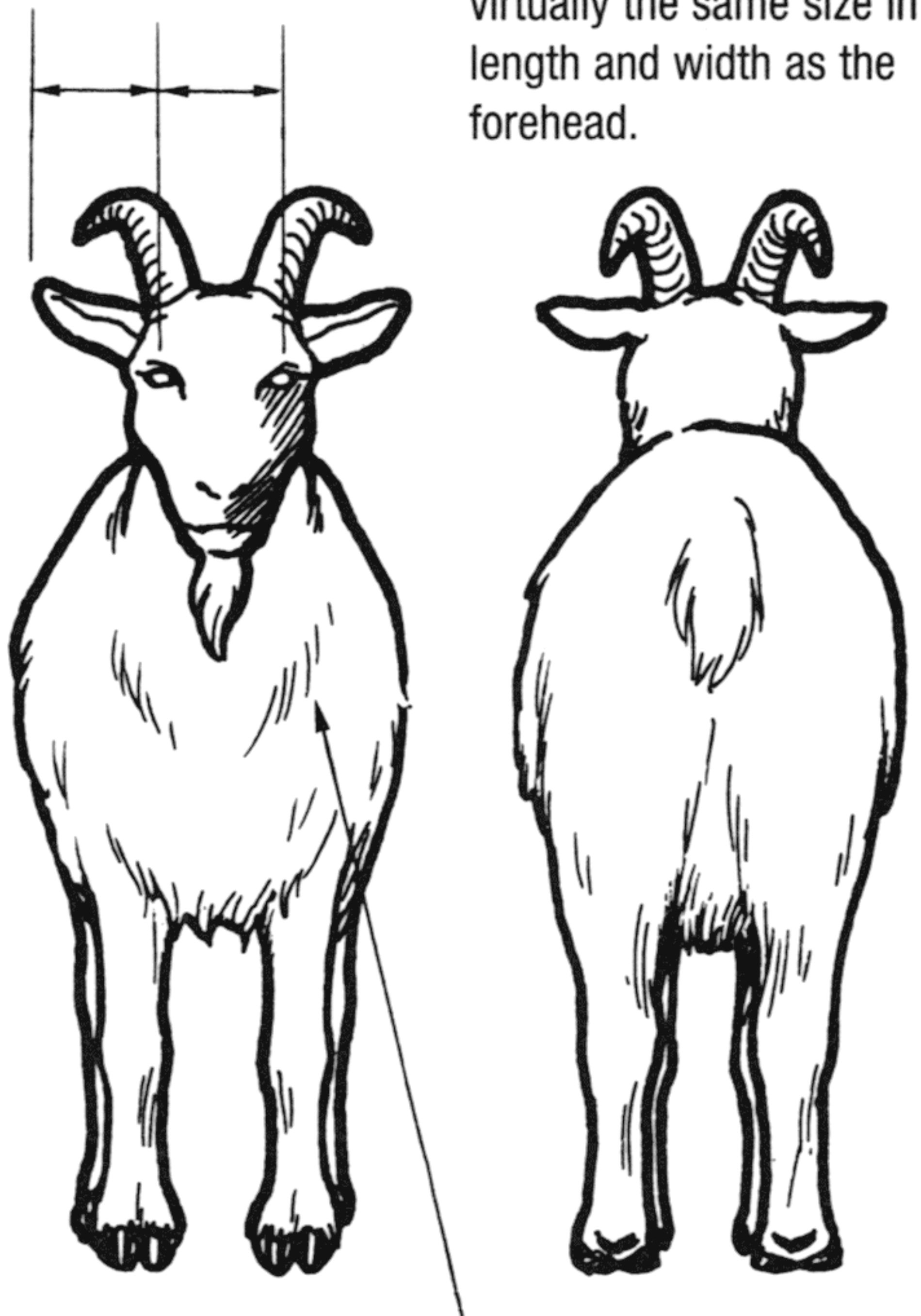
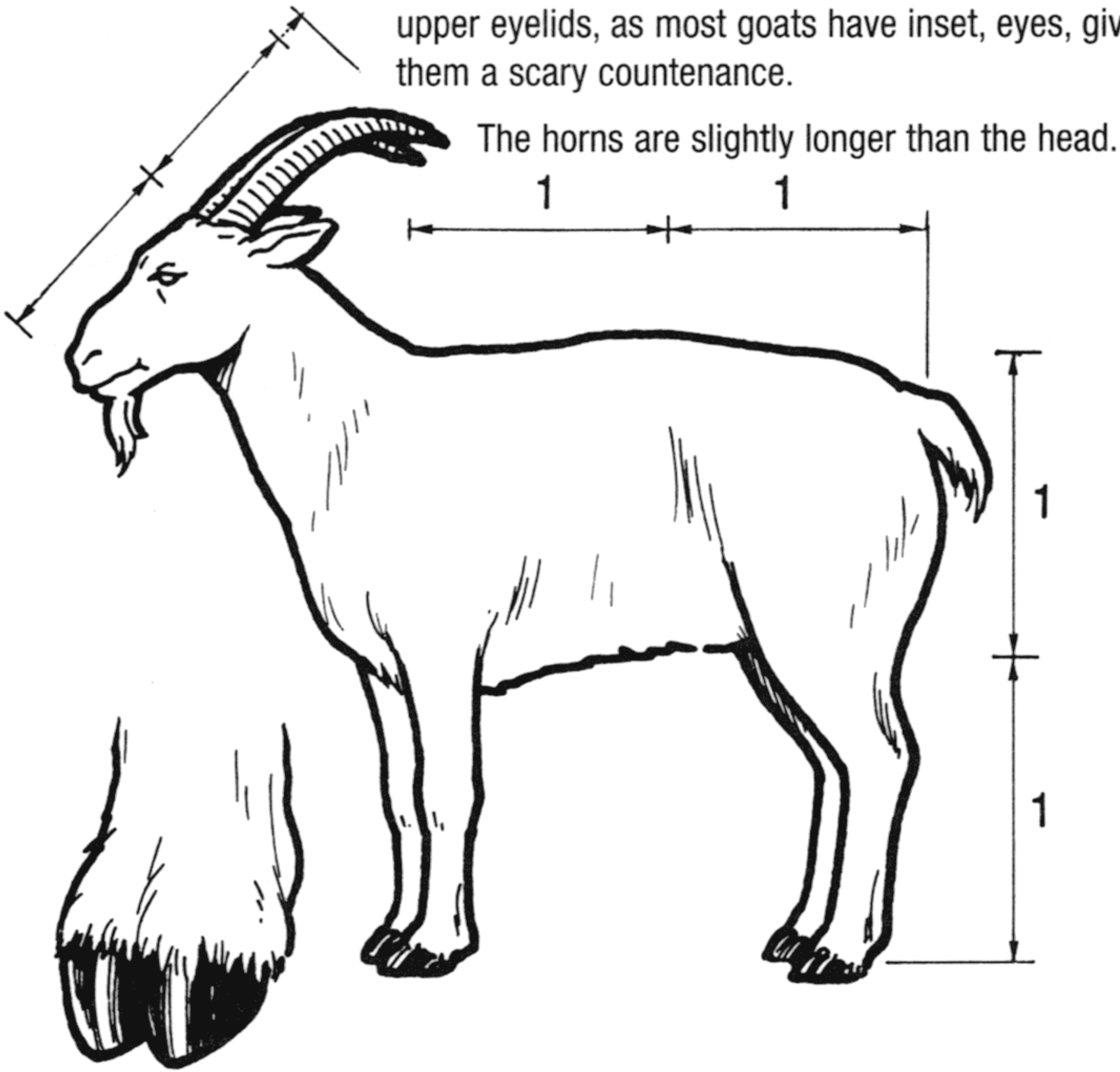
Despite being domestic animals tend to come across as rather untamed. Give their legs knobby joints, and heavy upper eyelids, as most goats have inset, eyes, giving them a scary countenance.

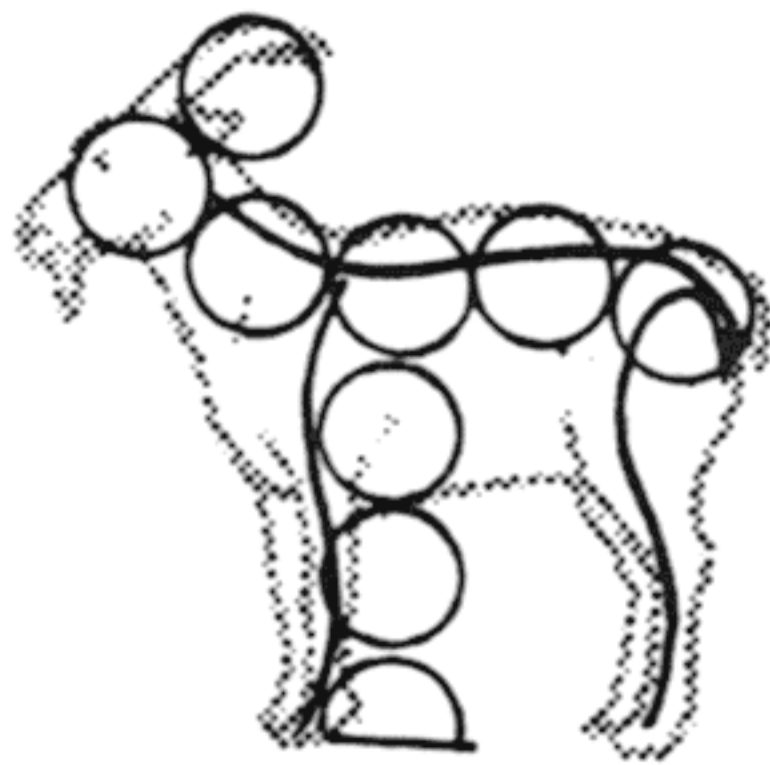
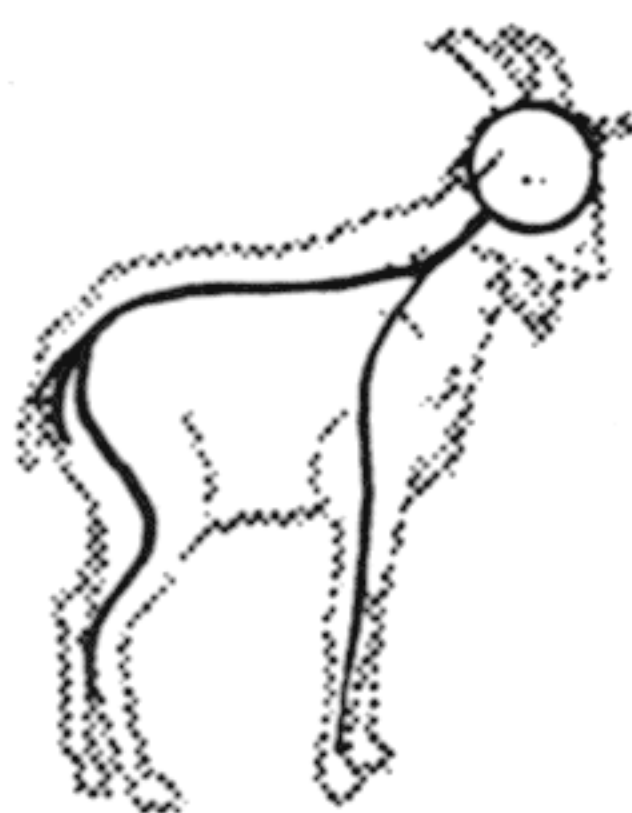
The horns are slightly longer than the head.

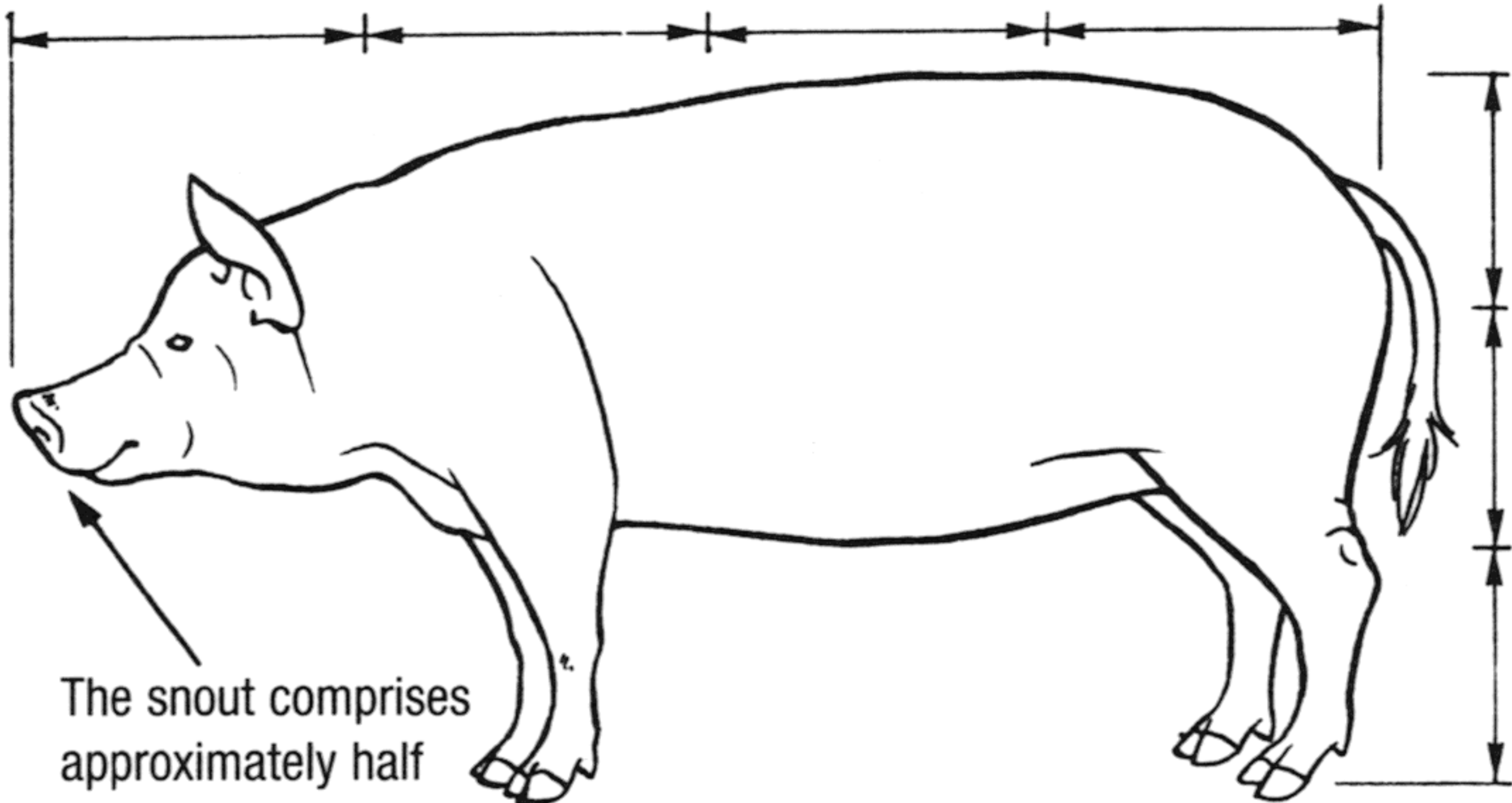
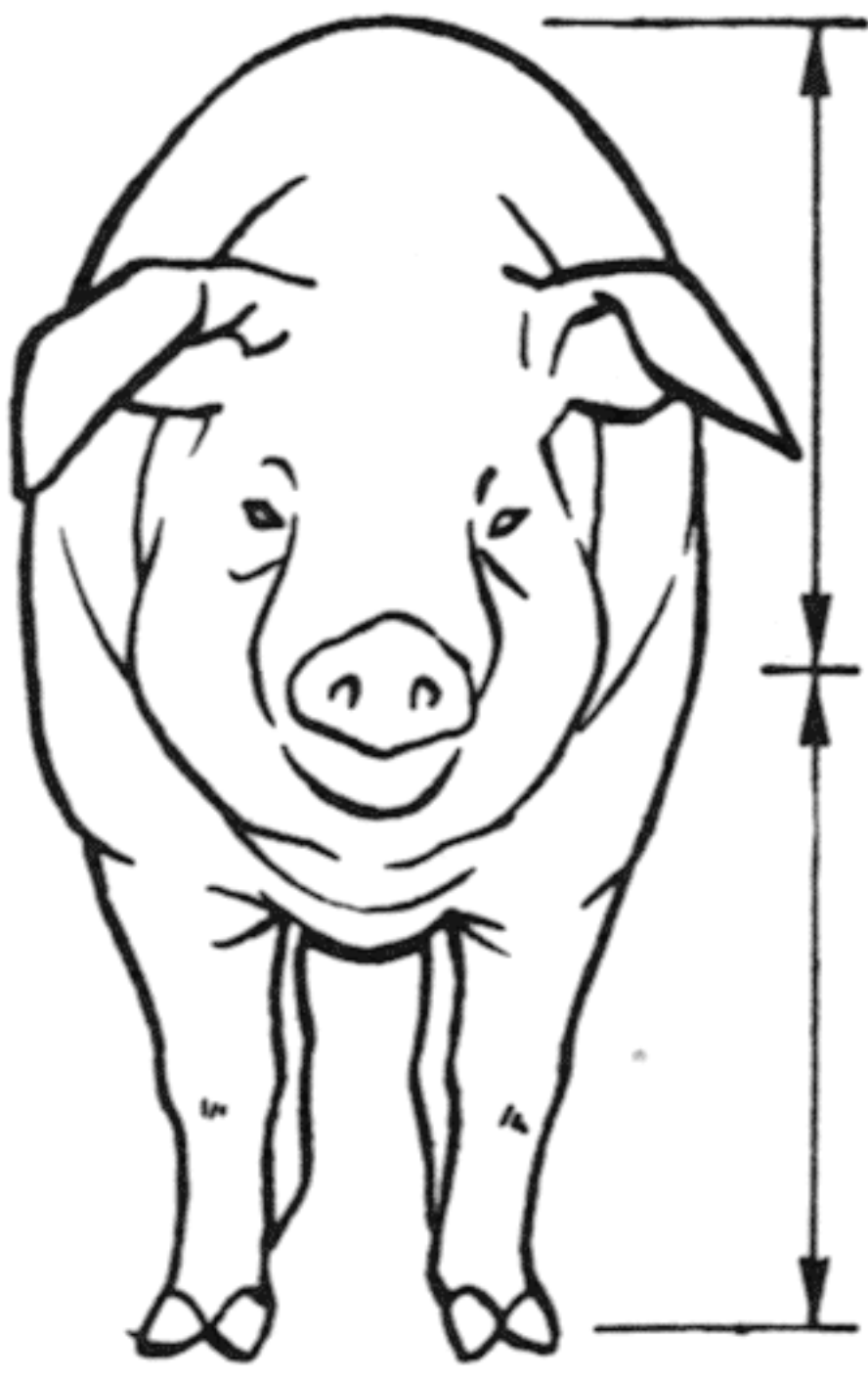
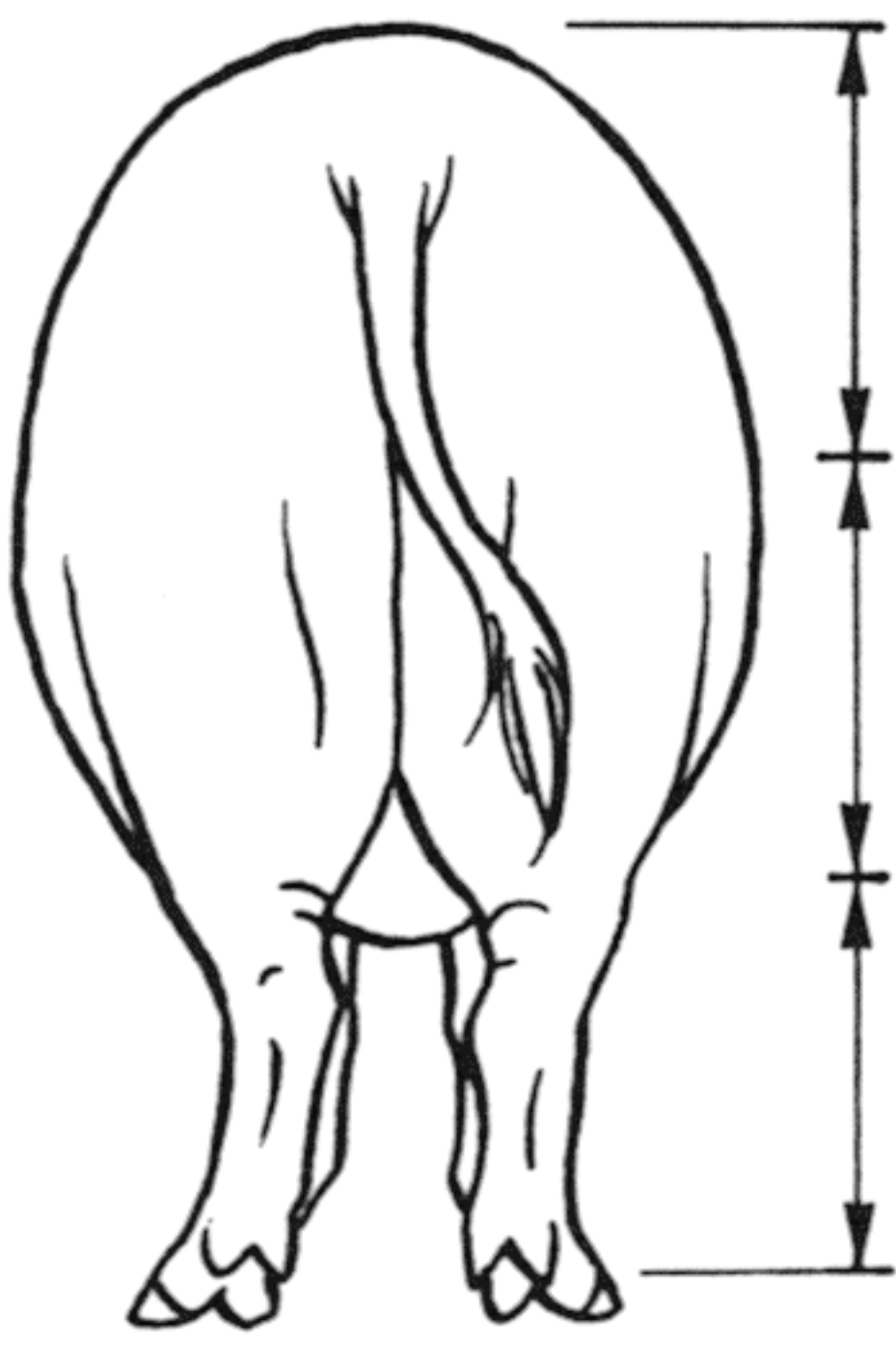
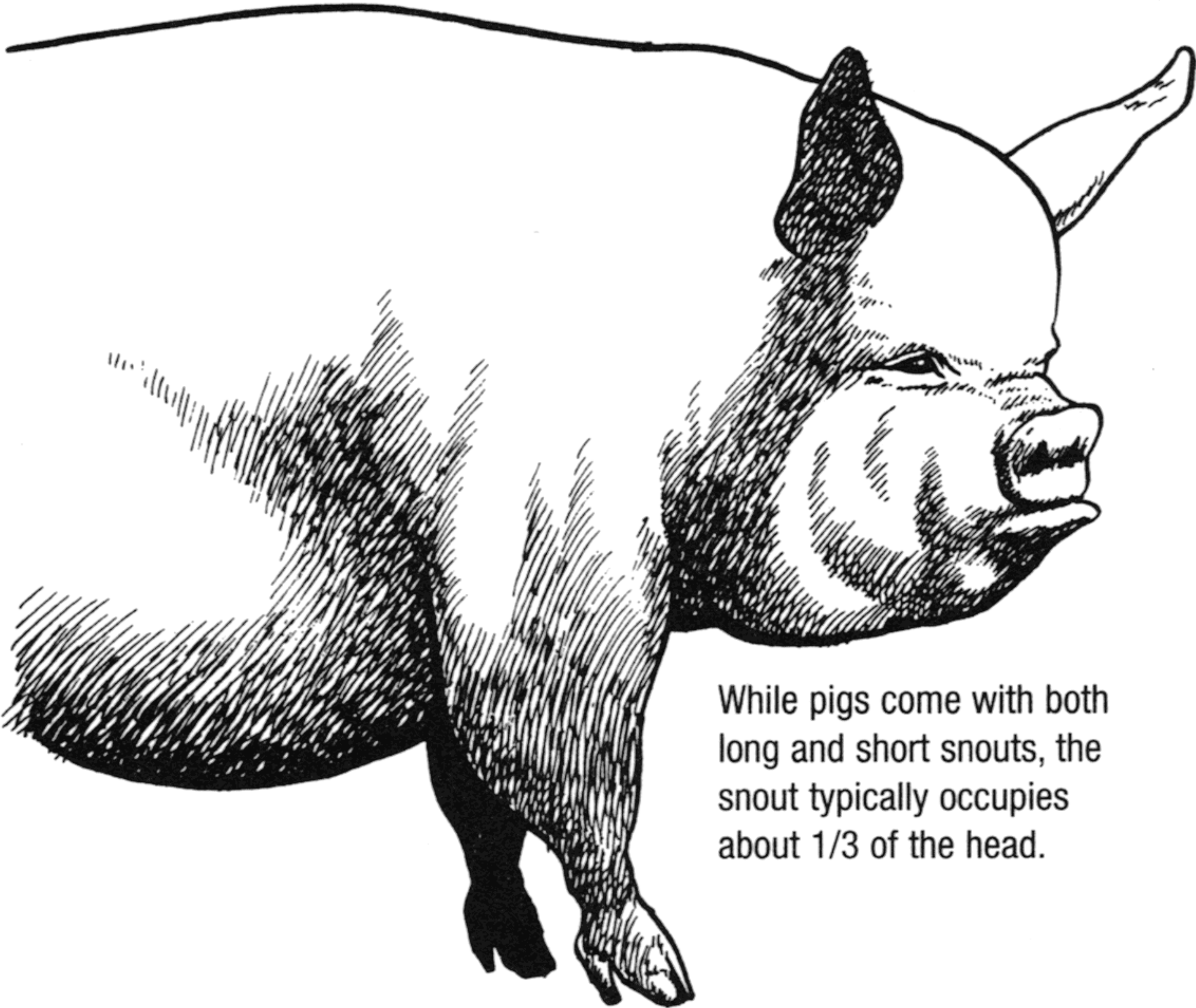
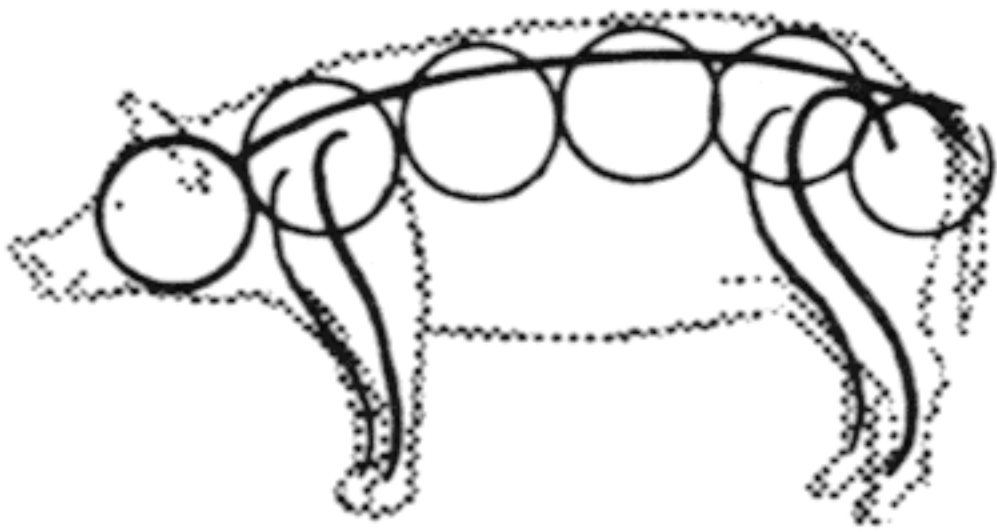
1 1

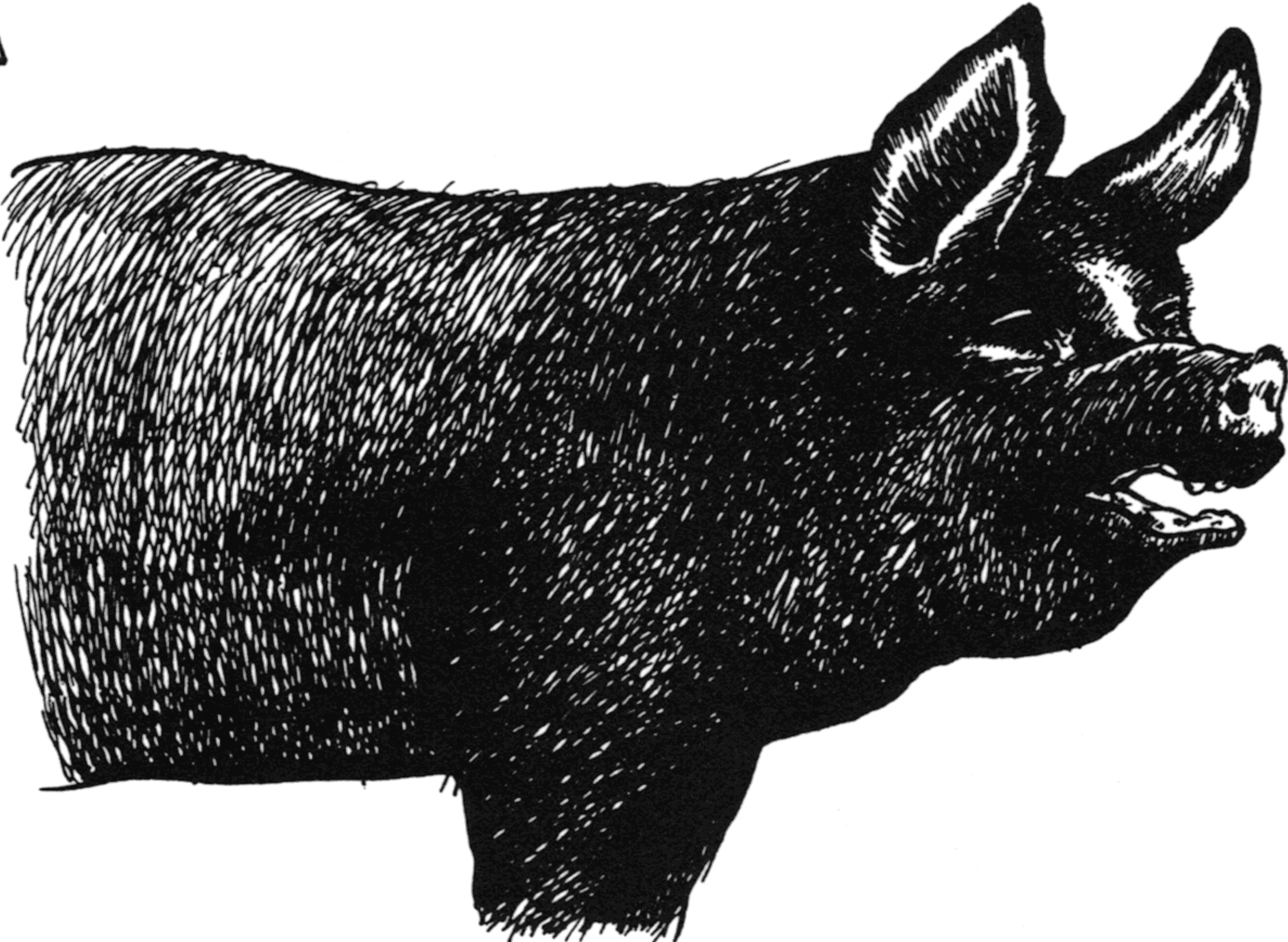
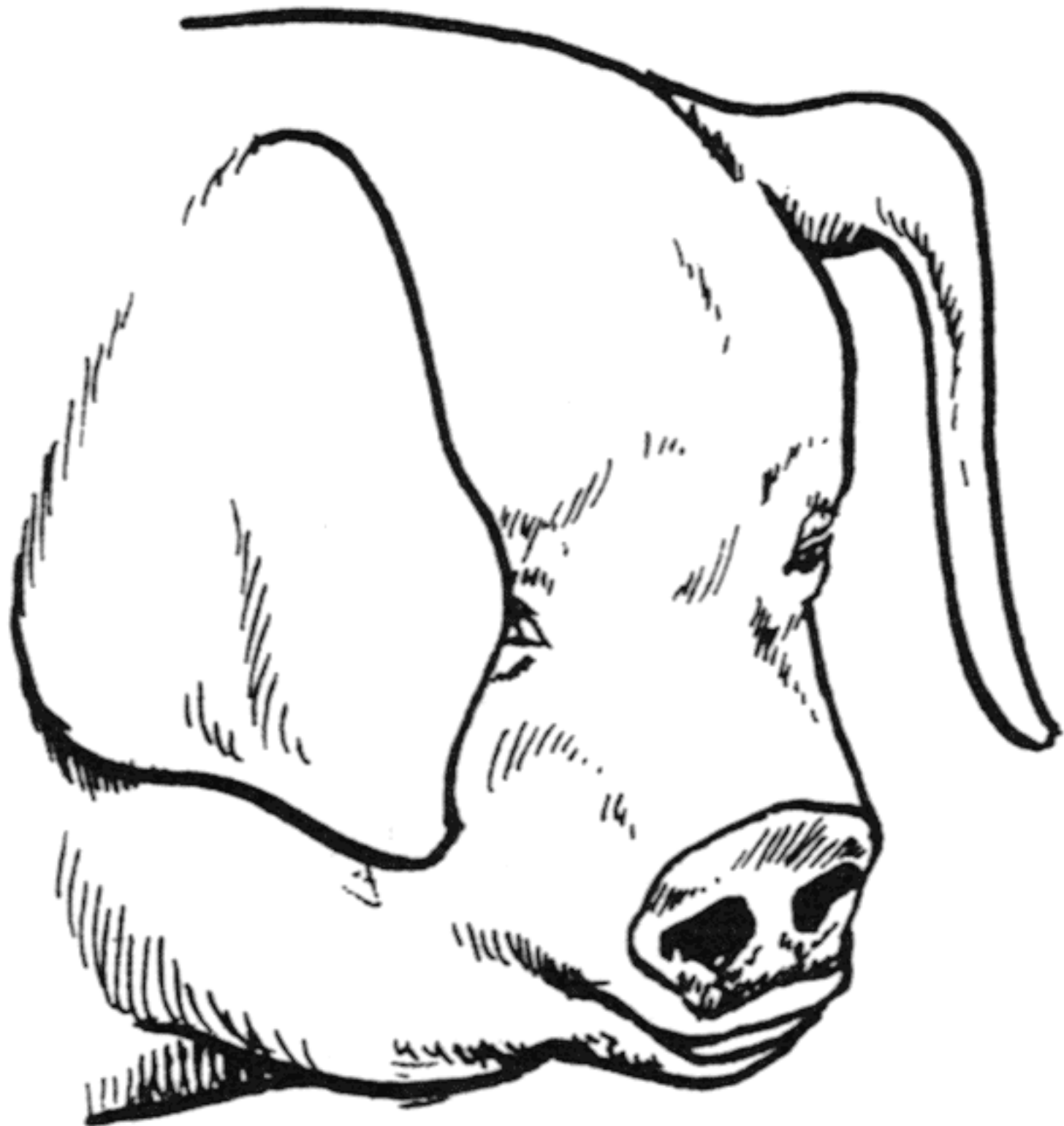
1

1

The projecting ears are virtually the same size in length and width as the forehead.

Define the base of the neck by drawing hair in the form of diagonal strokes.

The width of the horn's base is commonly the same as that of an eye.

Adding black imbues the horn with the sense of a hard texture.

Pigs

There are pigs with long head and pigs with wide heads. For both, I recommend rounding the head, using an elliptical shape.

The snout comprises approximately half the head.

When facing forward, the nose is positioned exactly at the midway point of the pig's total height.

While pigs come with both long and short snouts, the snout typically occupies about 1/3 of the head.

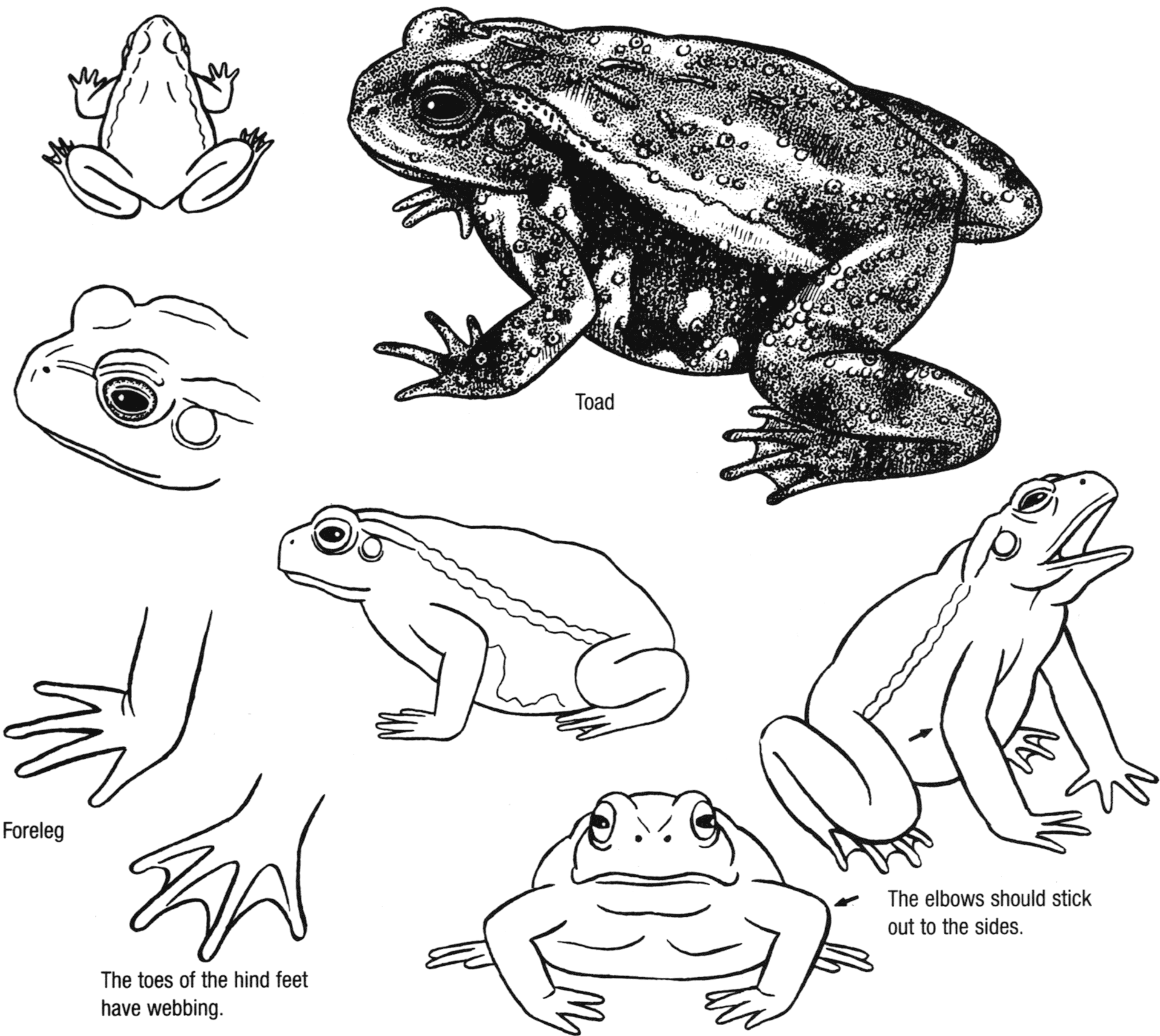
The ear exhibits a wide range of expressive motion.

Frogs

Drawing your frogs with their elbows pointed outward produces that distinctive supercilious air that frogs seem to have.

Toad

Foreleg

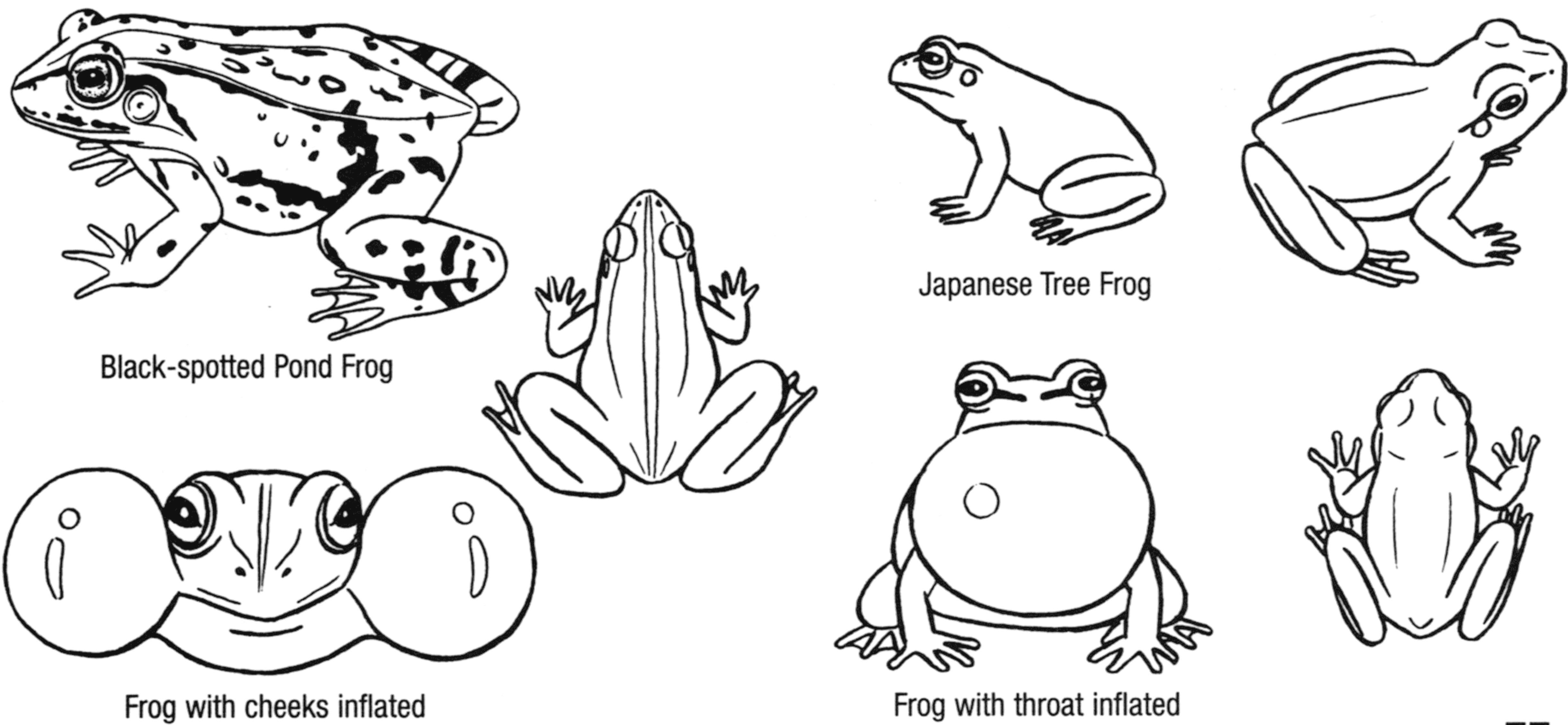
The toes of the hind feet have webbing.

The elbows should stick out to the sides.

Appearance when Croaking

Black-spotted Pond Frog

Japanese Tree Frog

Frog with cheeks inflated

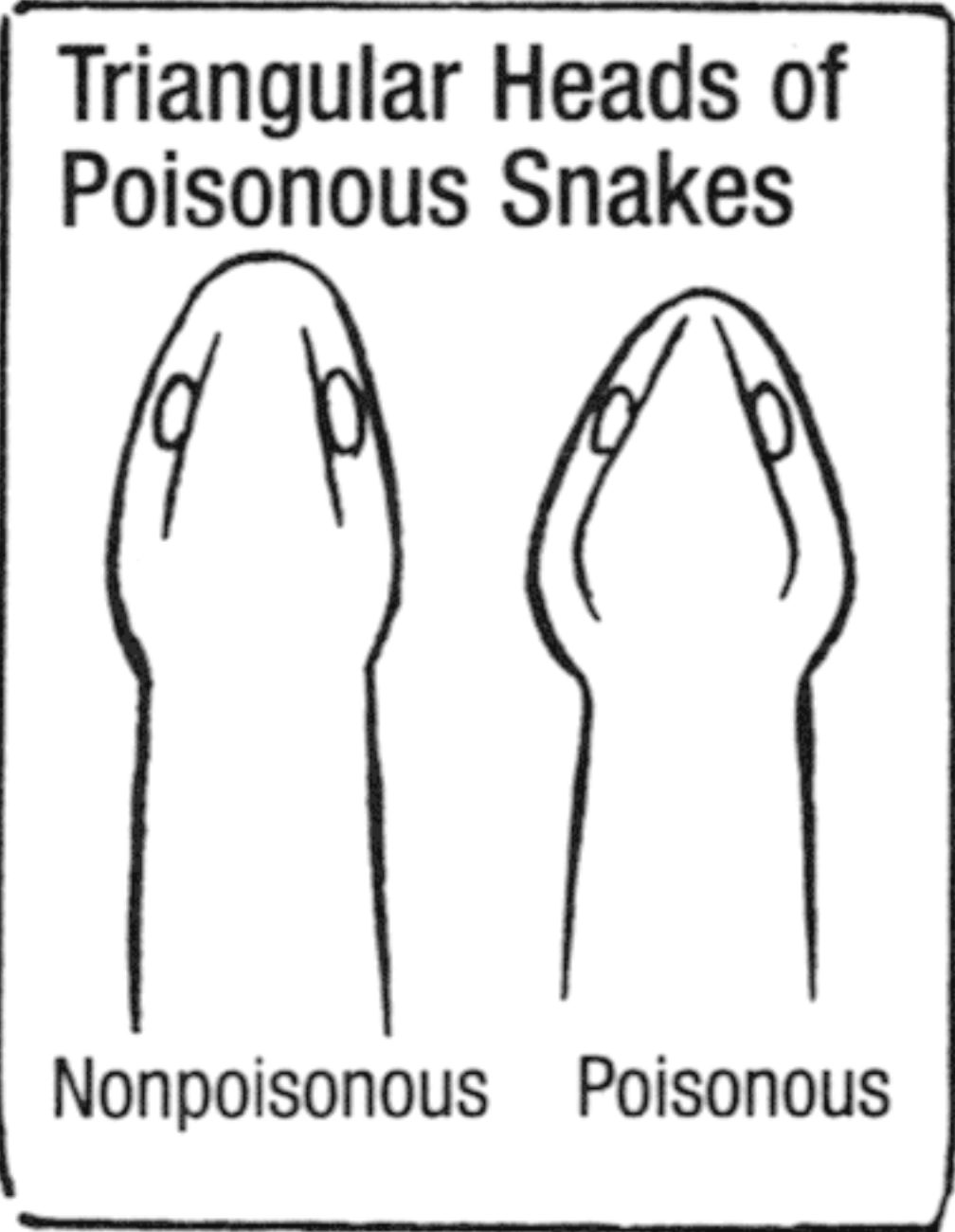
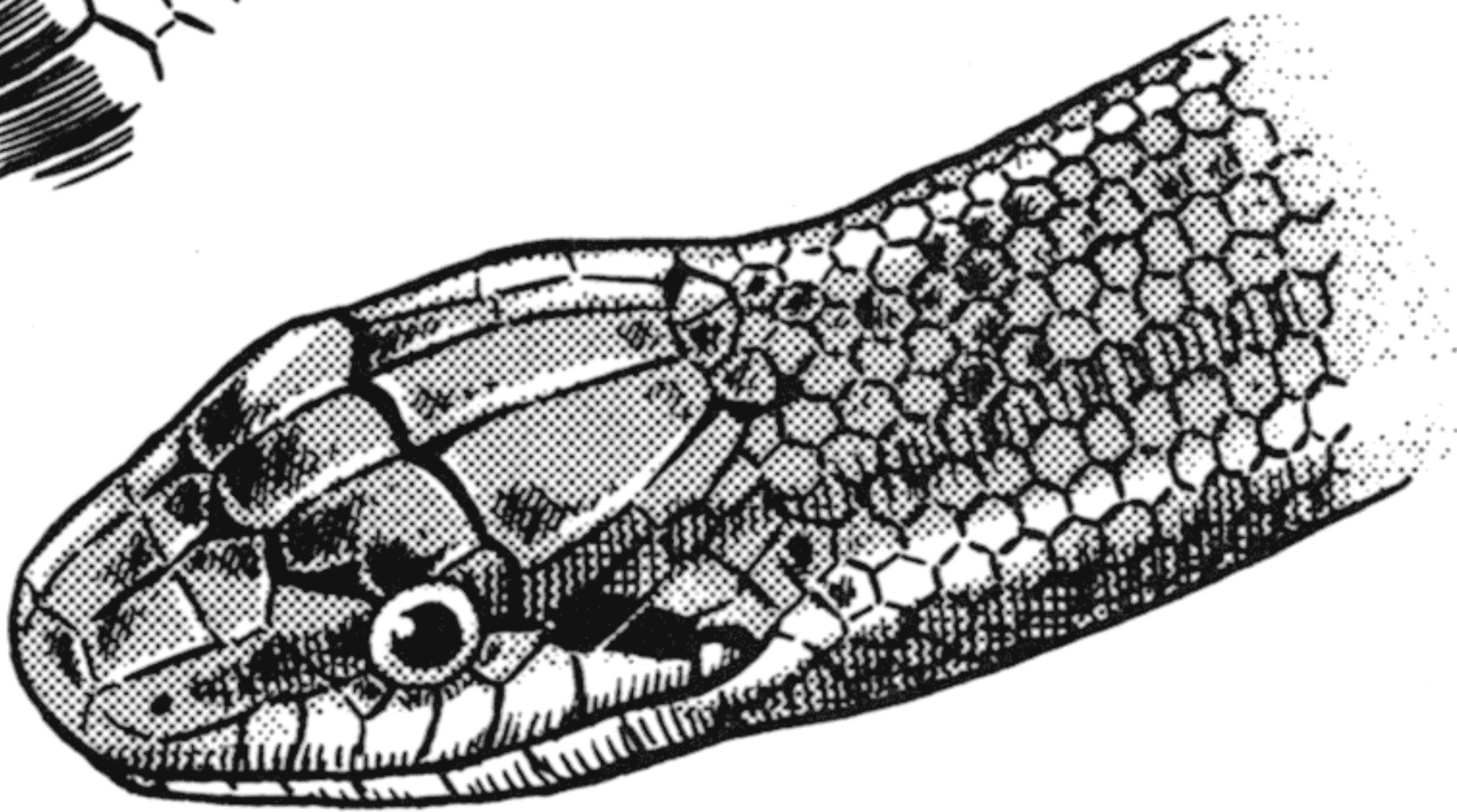
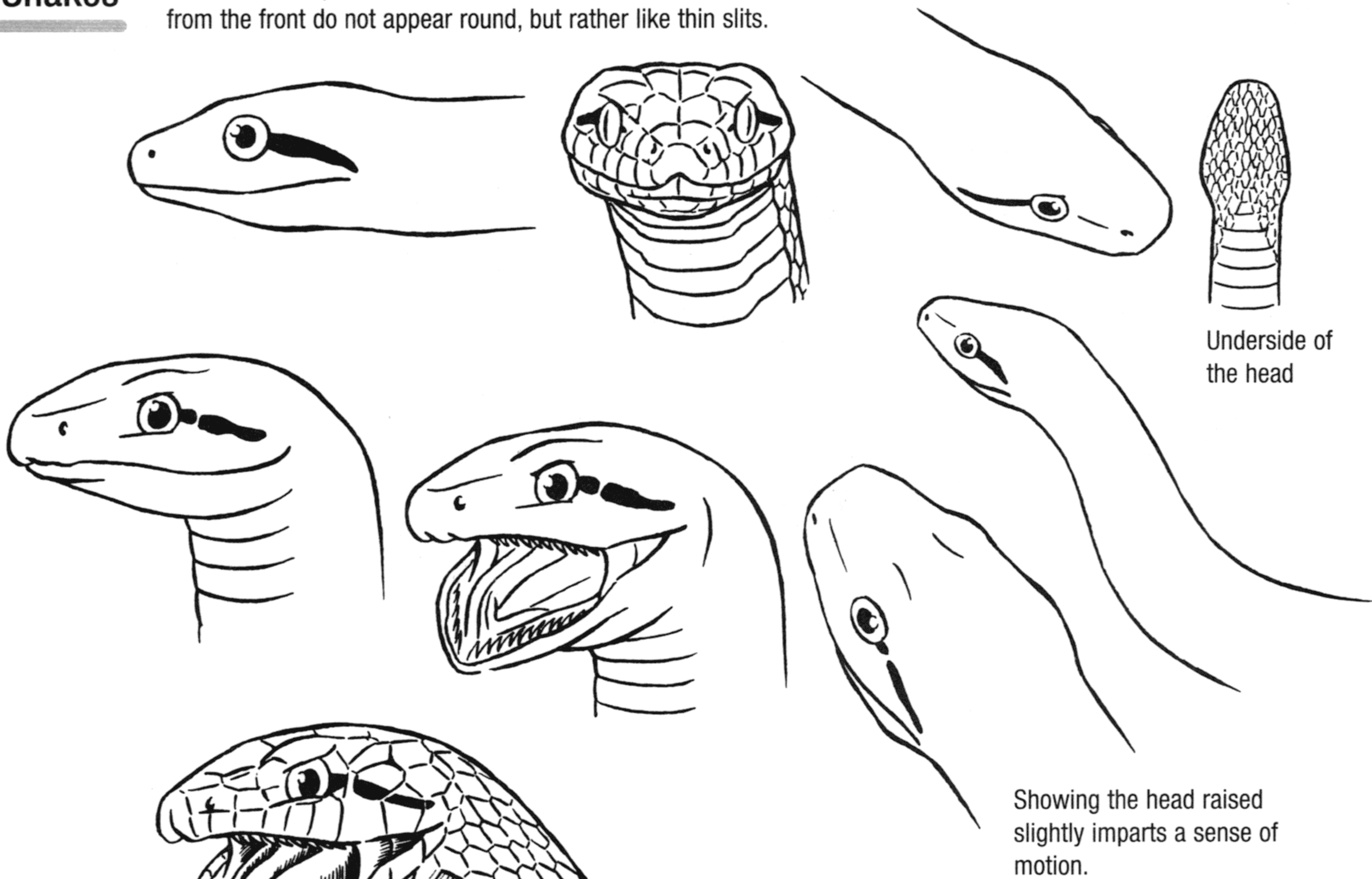
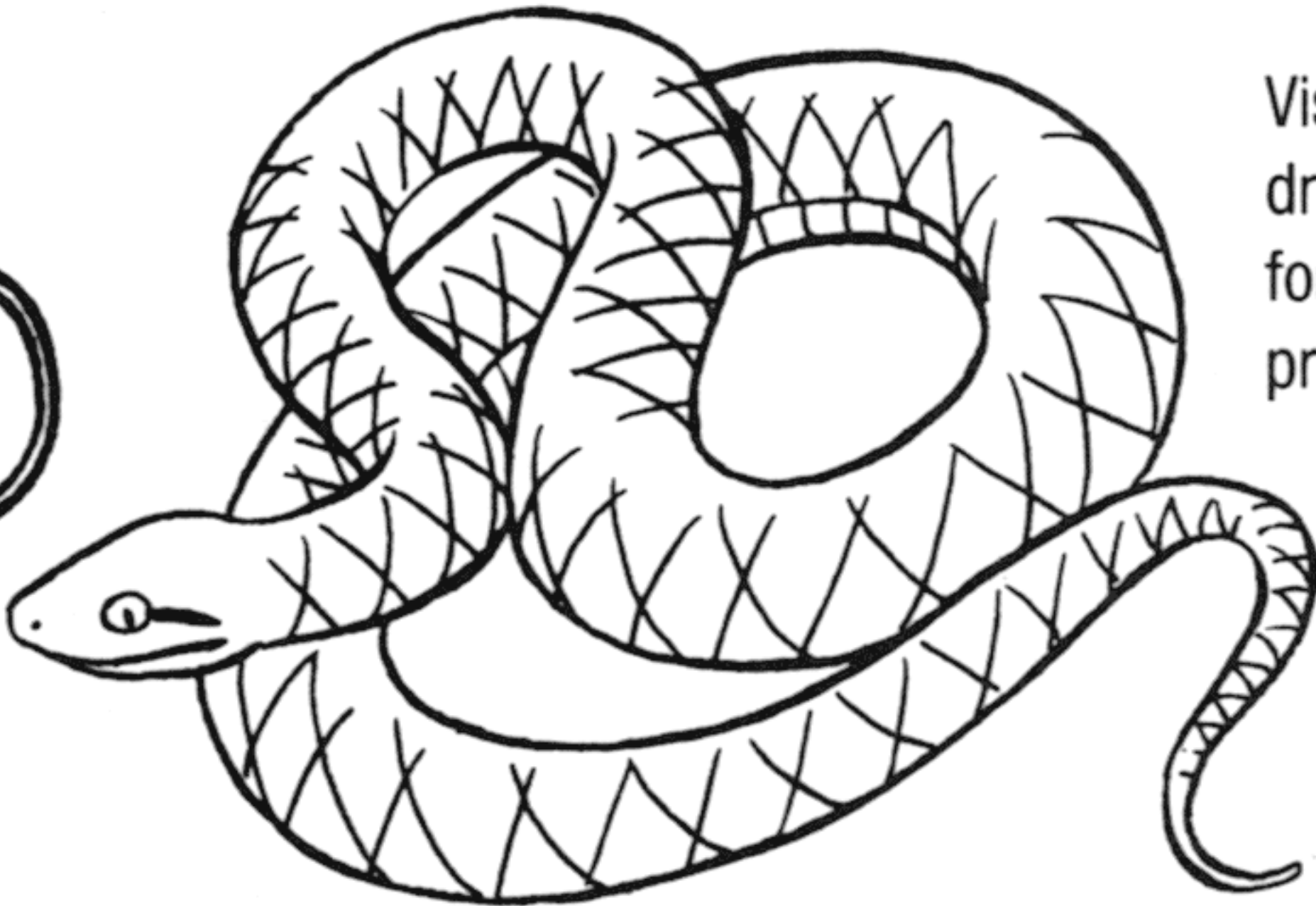
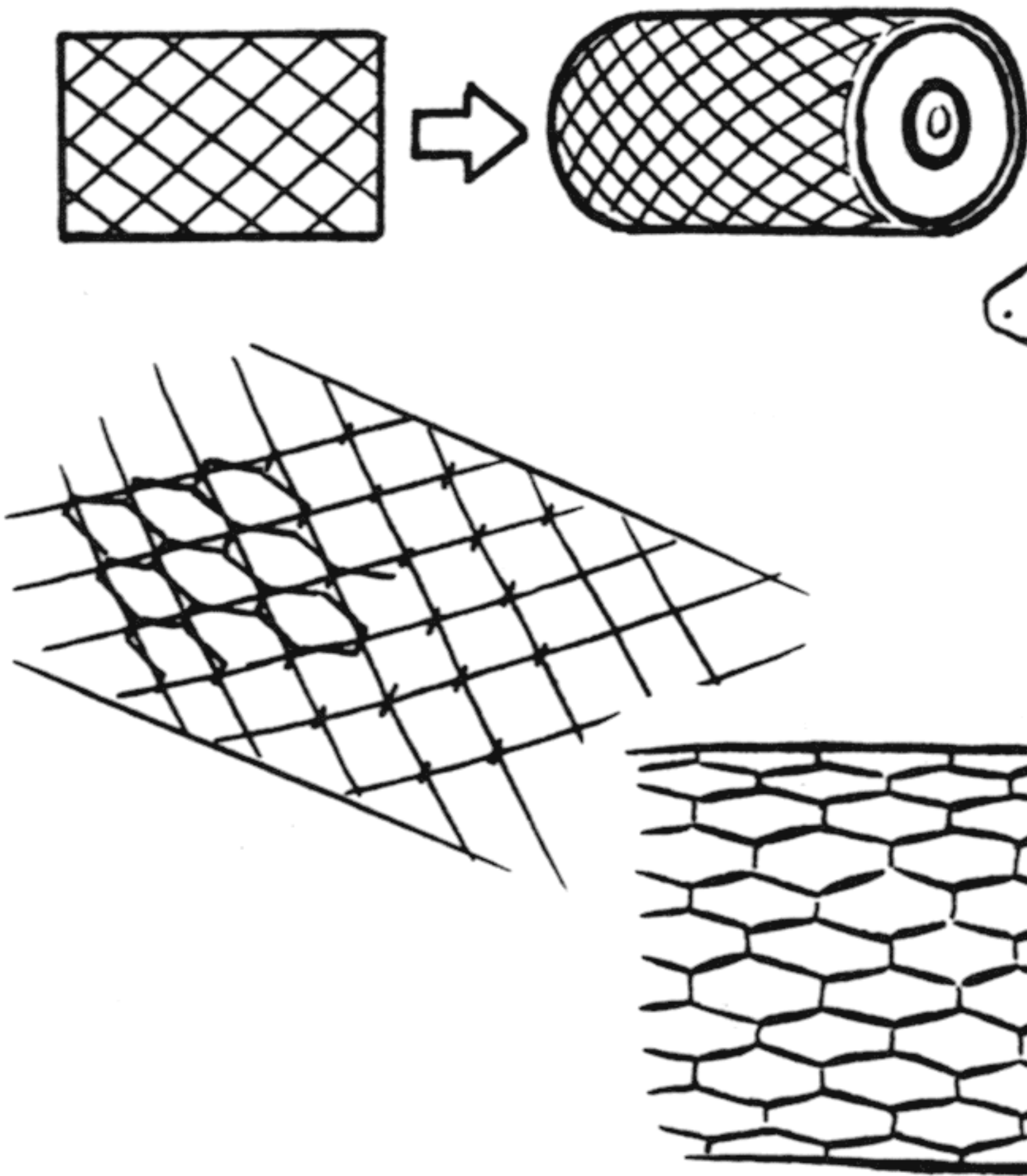
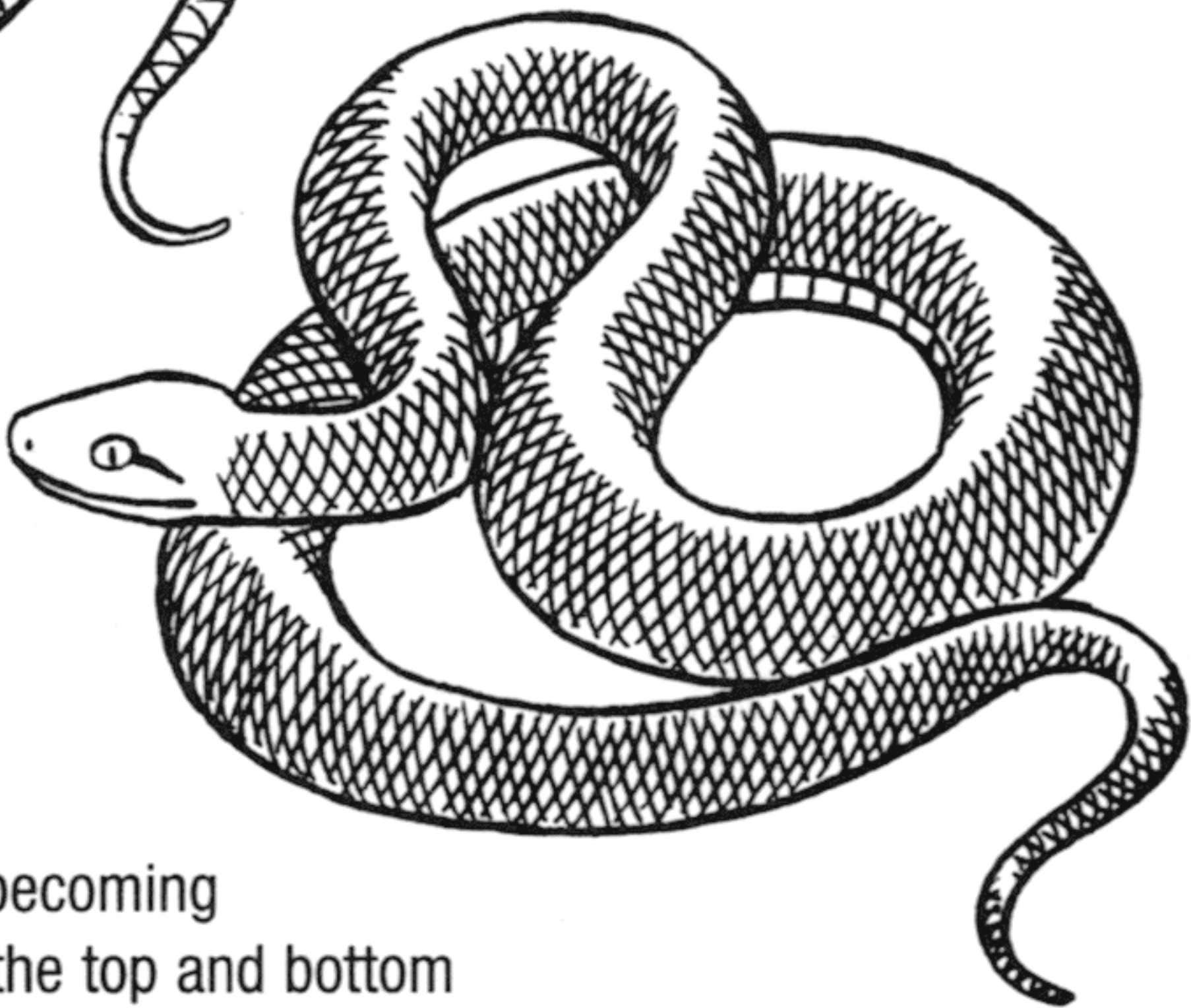
Frog with throat inflated

Snakes

Snakes have rope-like bodies and flat heads. Note that the pupils from the front do not appear round, but rather like thin slits.

Underside of the head

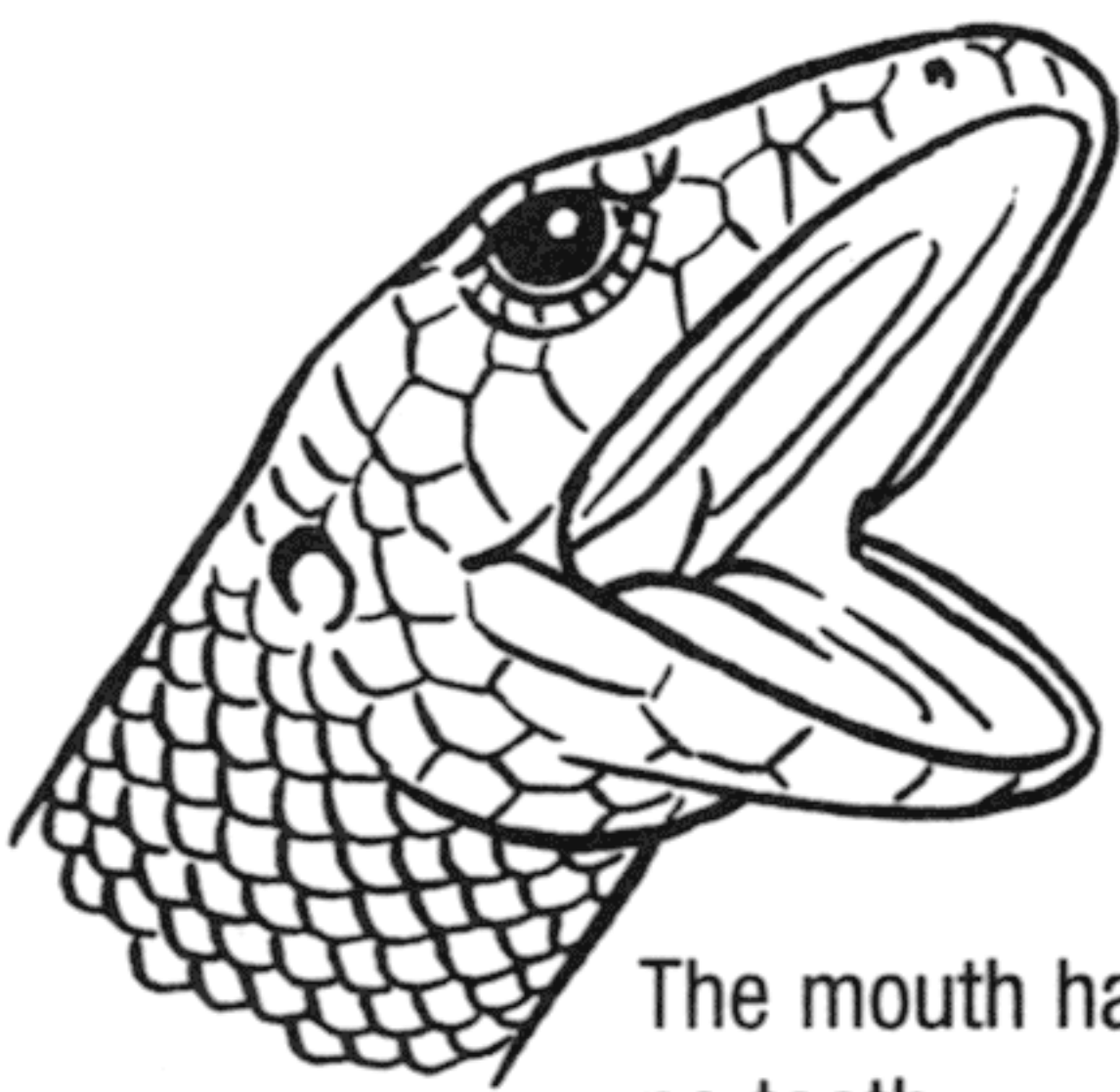
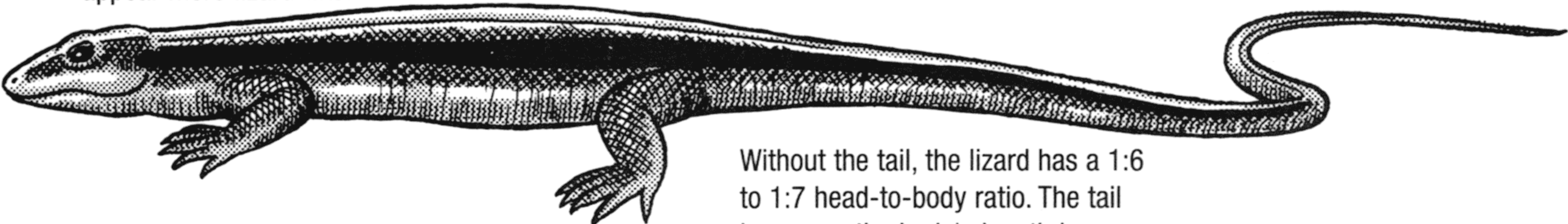
Showing the head raised slightly imparts a sense of motion.

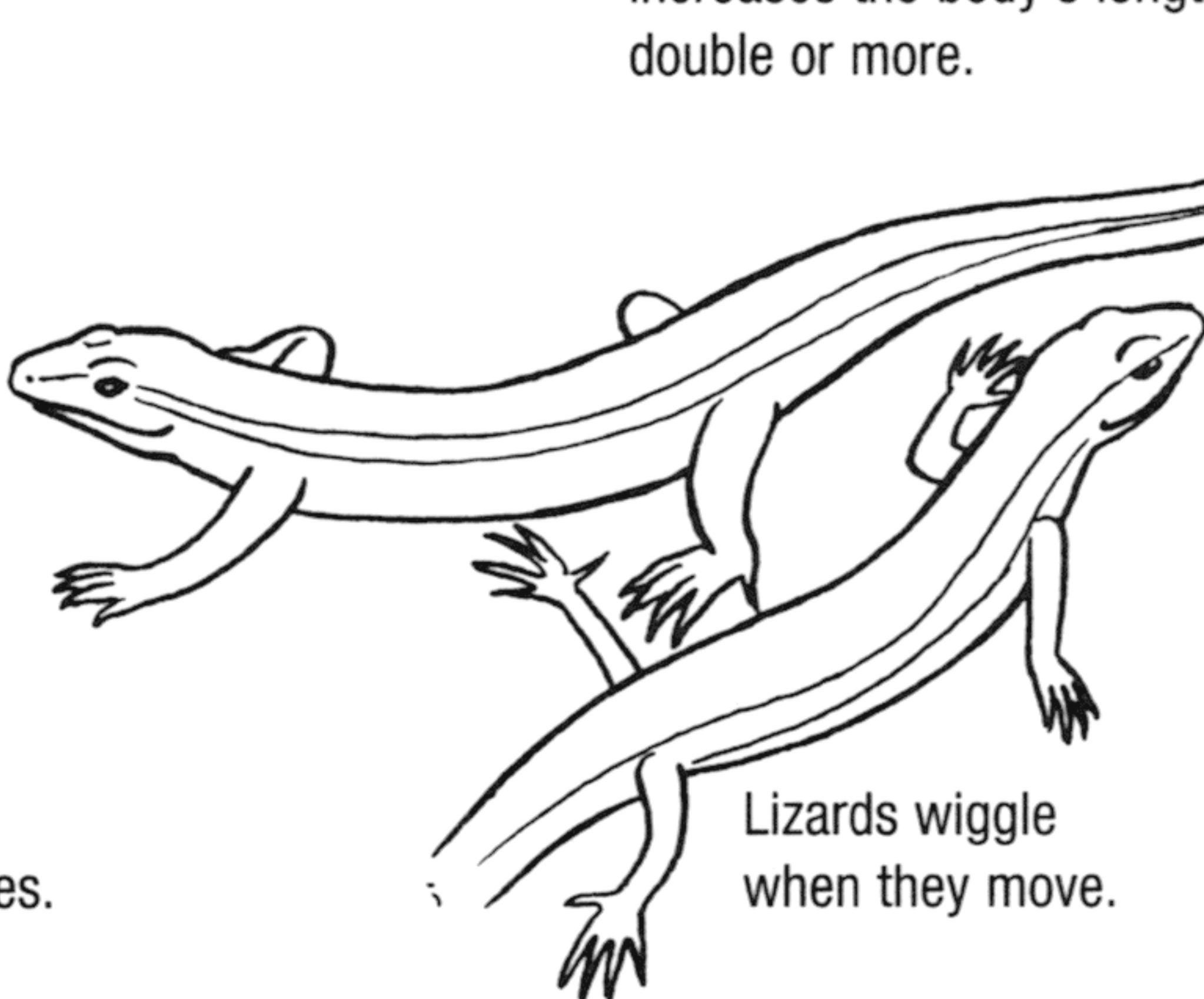
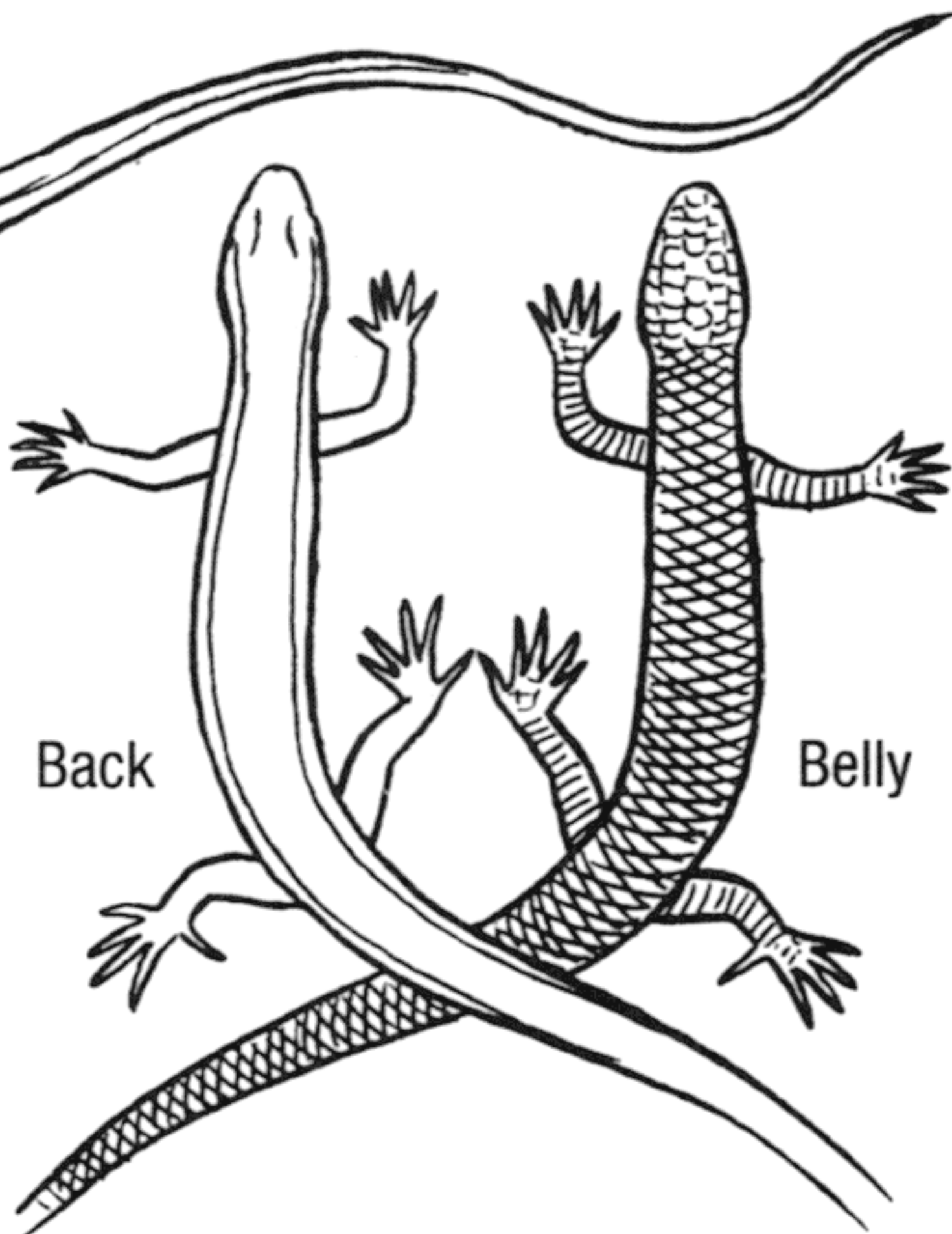
Triangular Heads of Poisonous Snakes

Nonpoisonous Poisonous

Drawing Snake Scales

Visualizing the spine and drawing the scales in segments for each curve of the spine produces a satisfying image.

Showing the scales becoming compressed toward the top and bottom of the body generates a three-dimensional feel.

Lizards

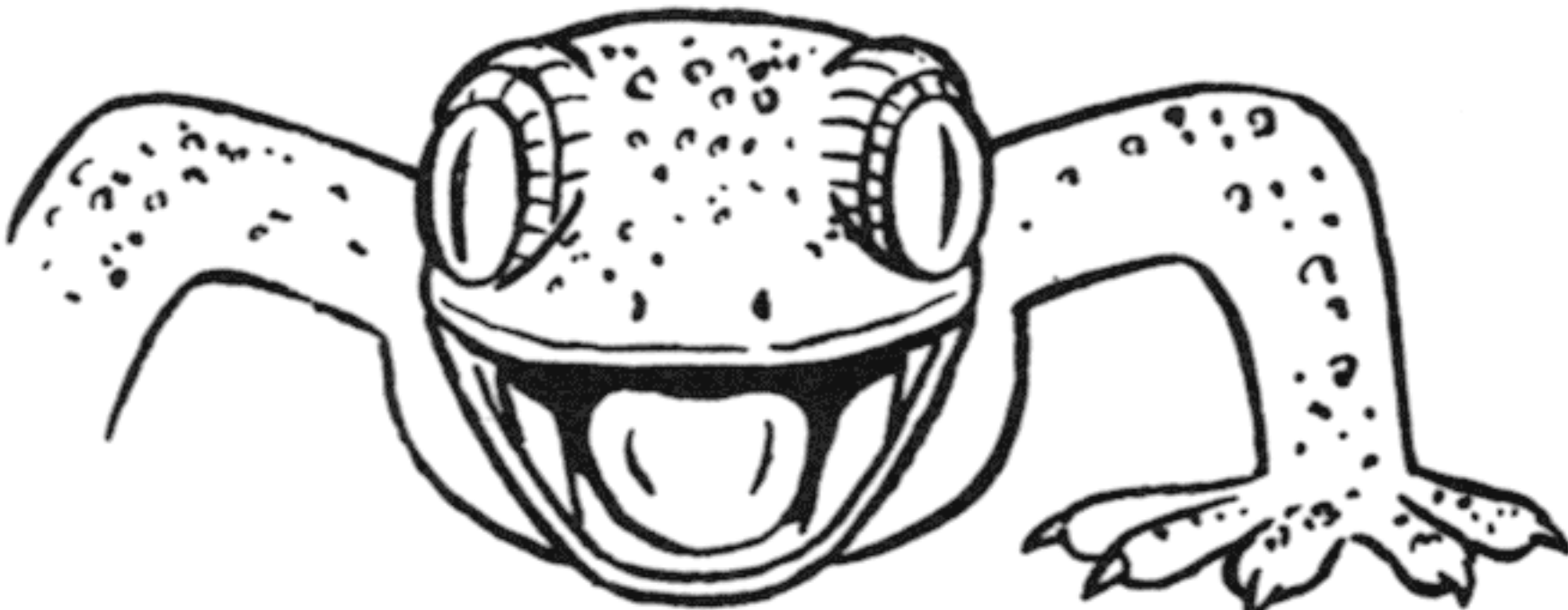
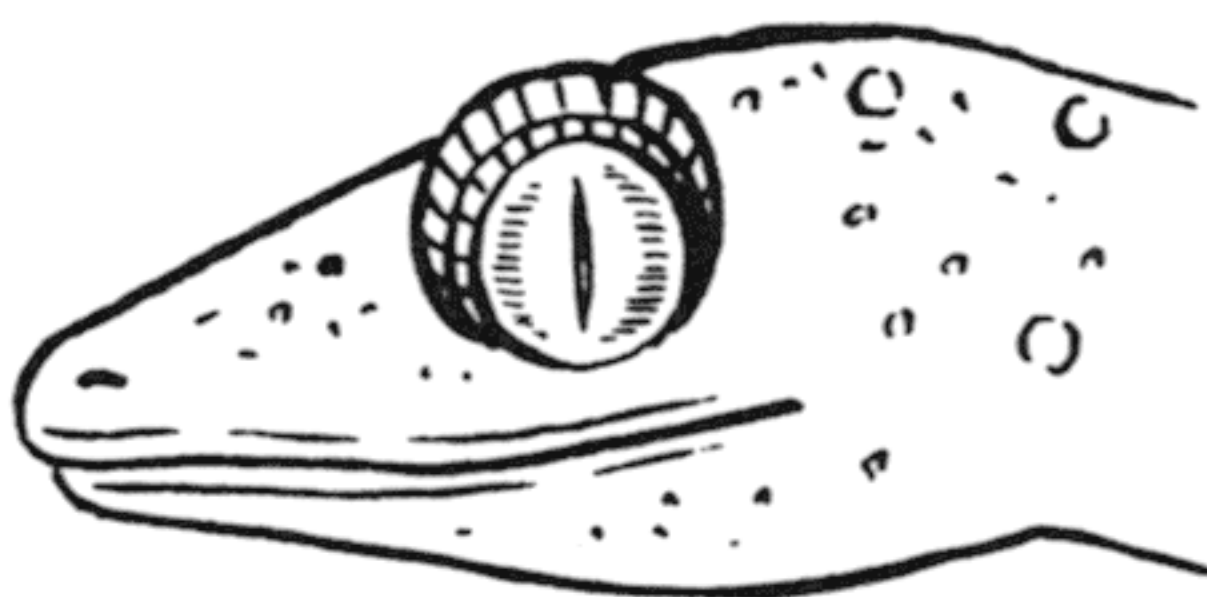
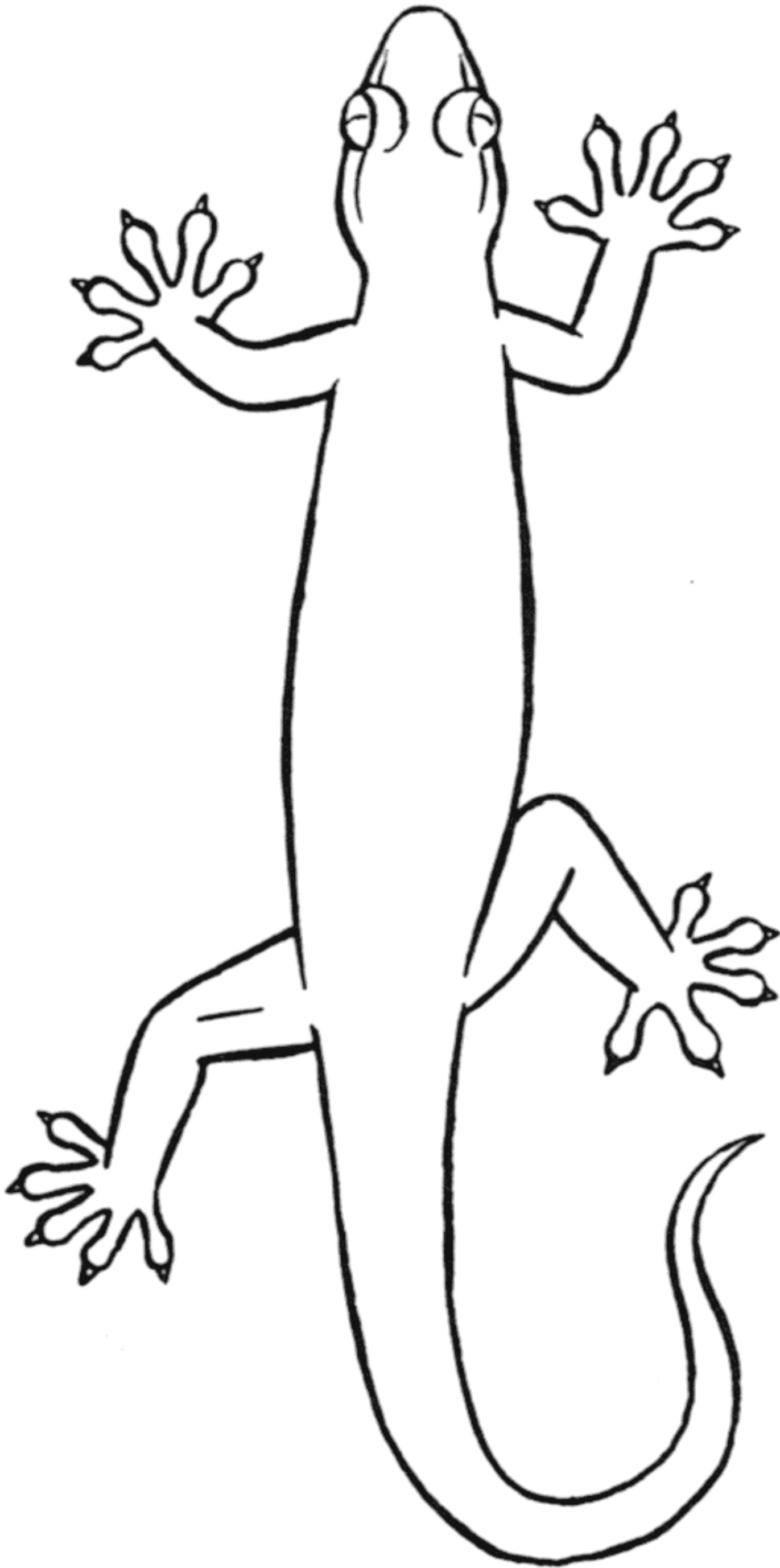
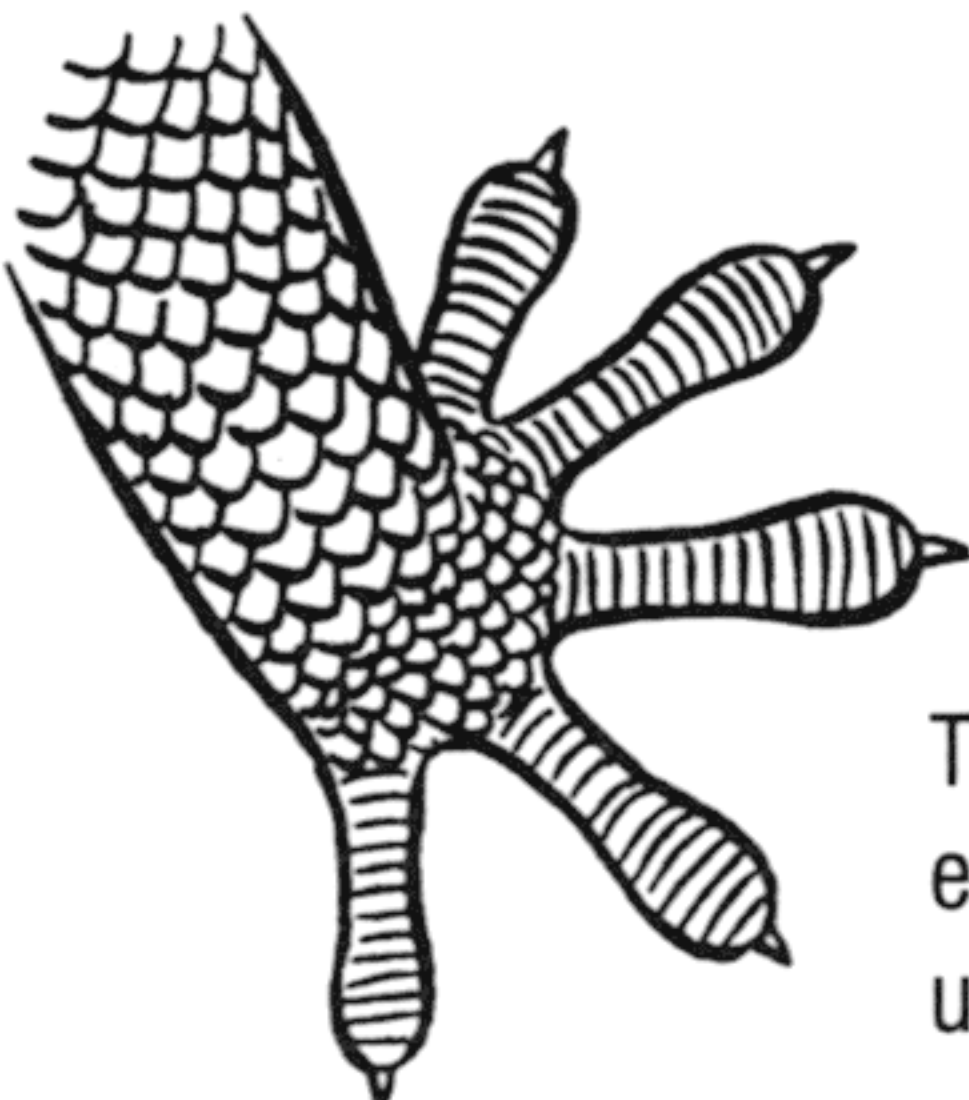
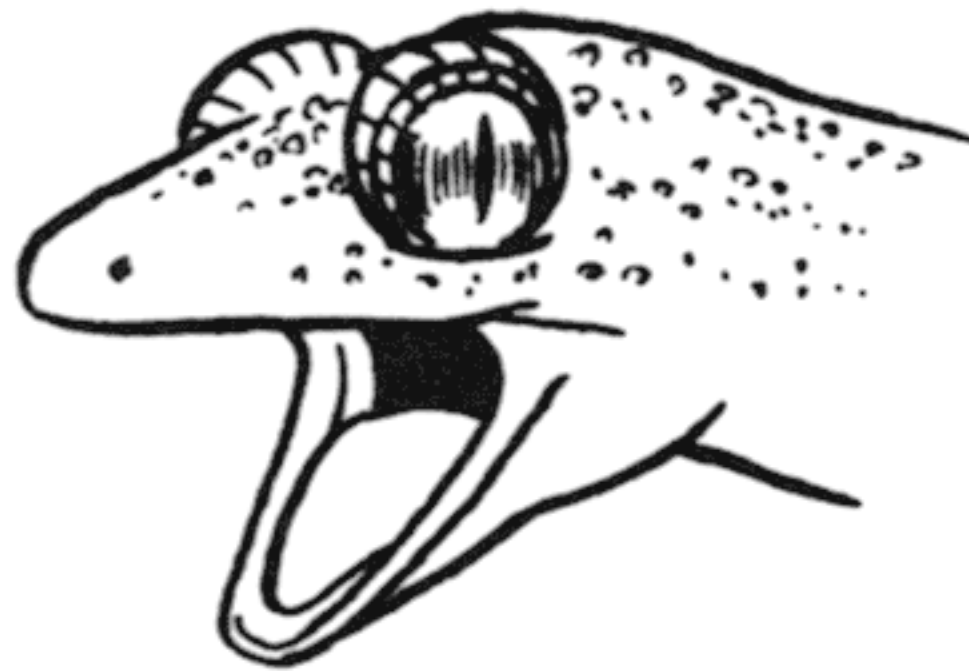
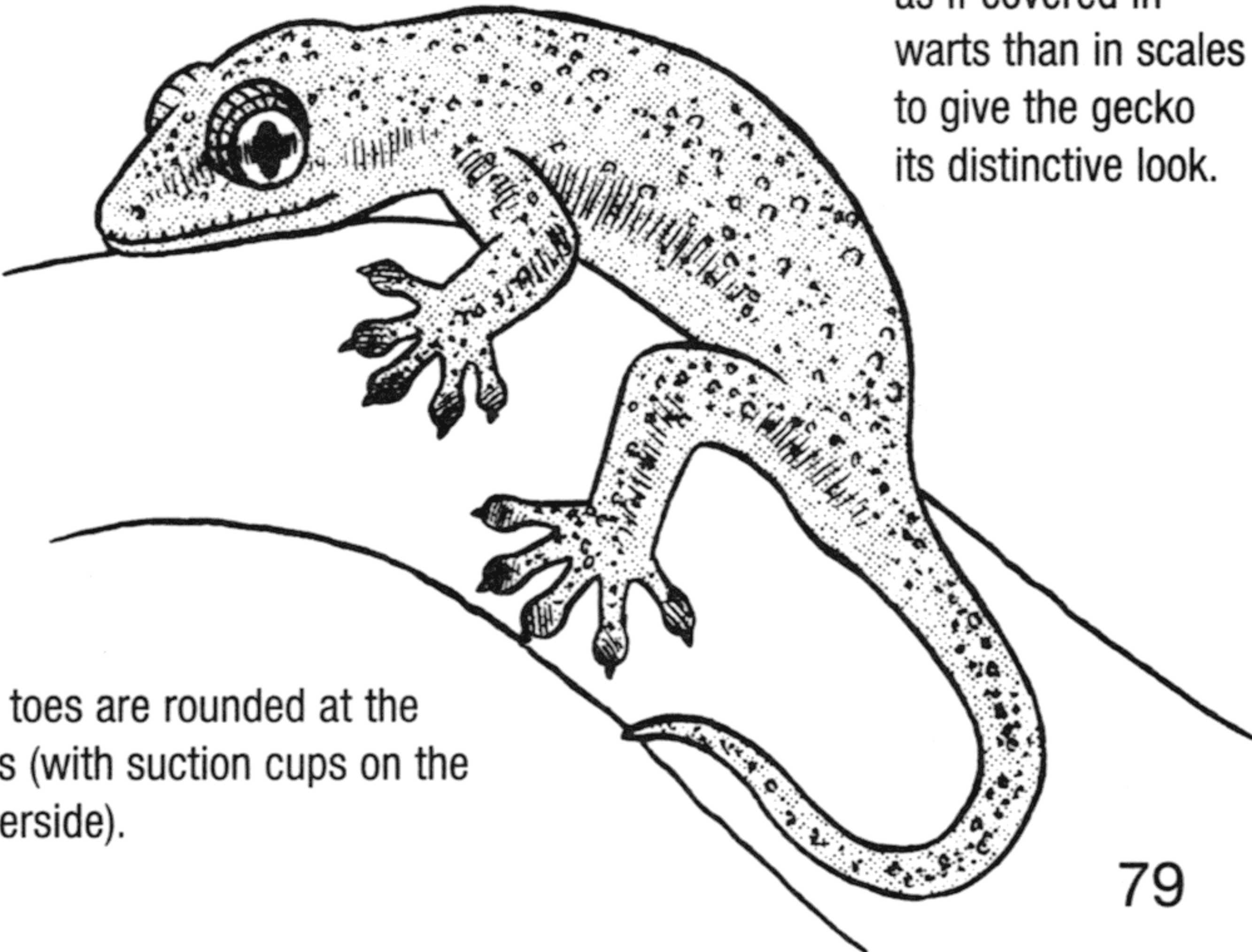
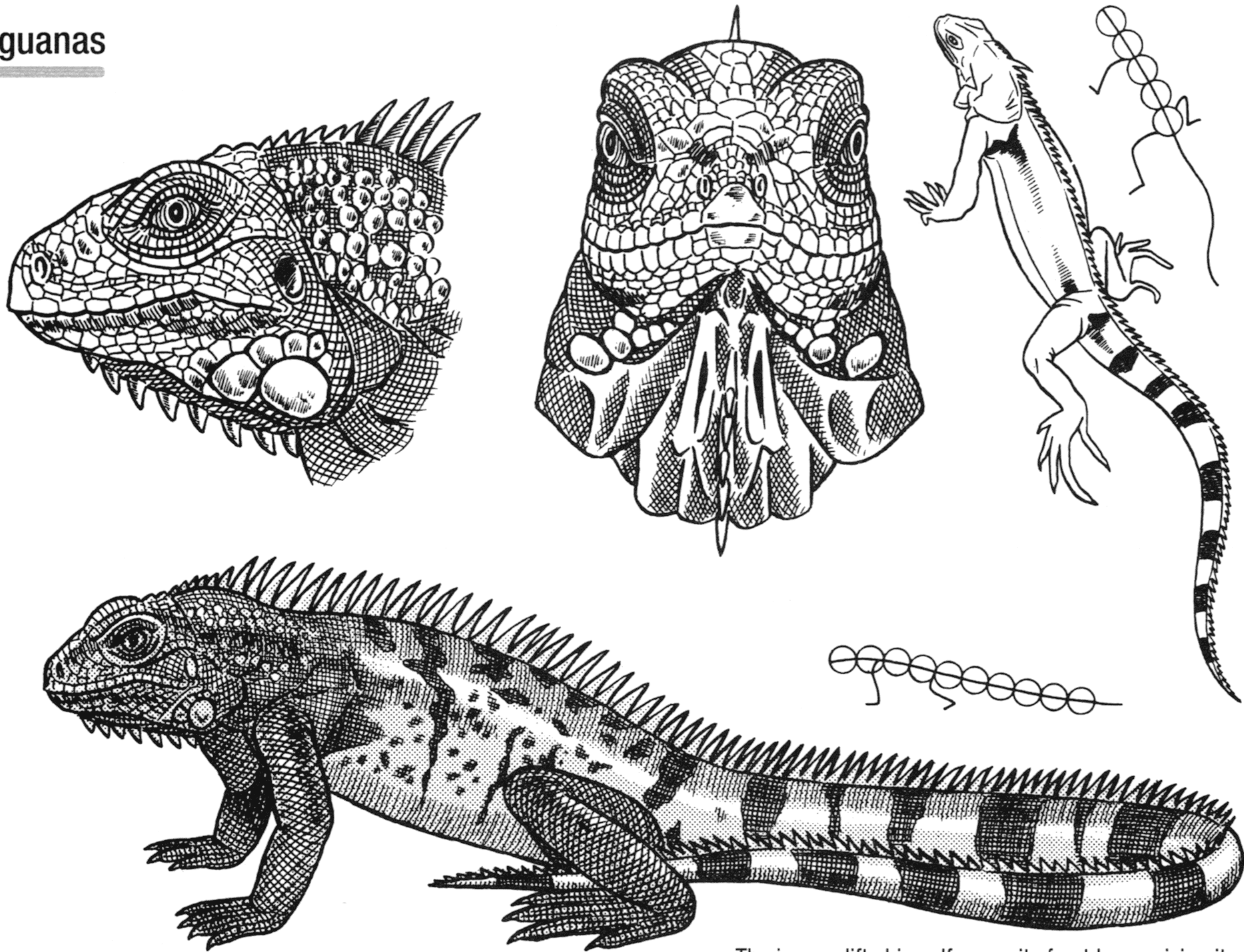
Lizards are basically snakes with feet. However, the abdomen should have a gentle swell, and the body should taper toward the tail, so that the figure does have some curve to it.

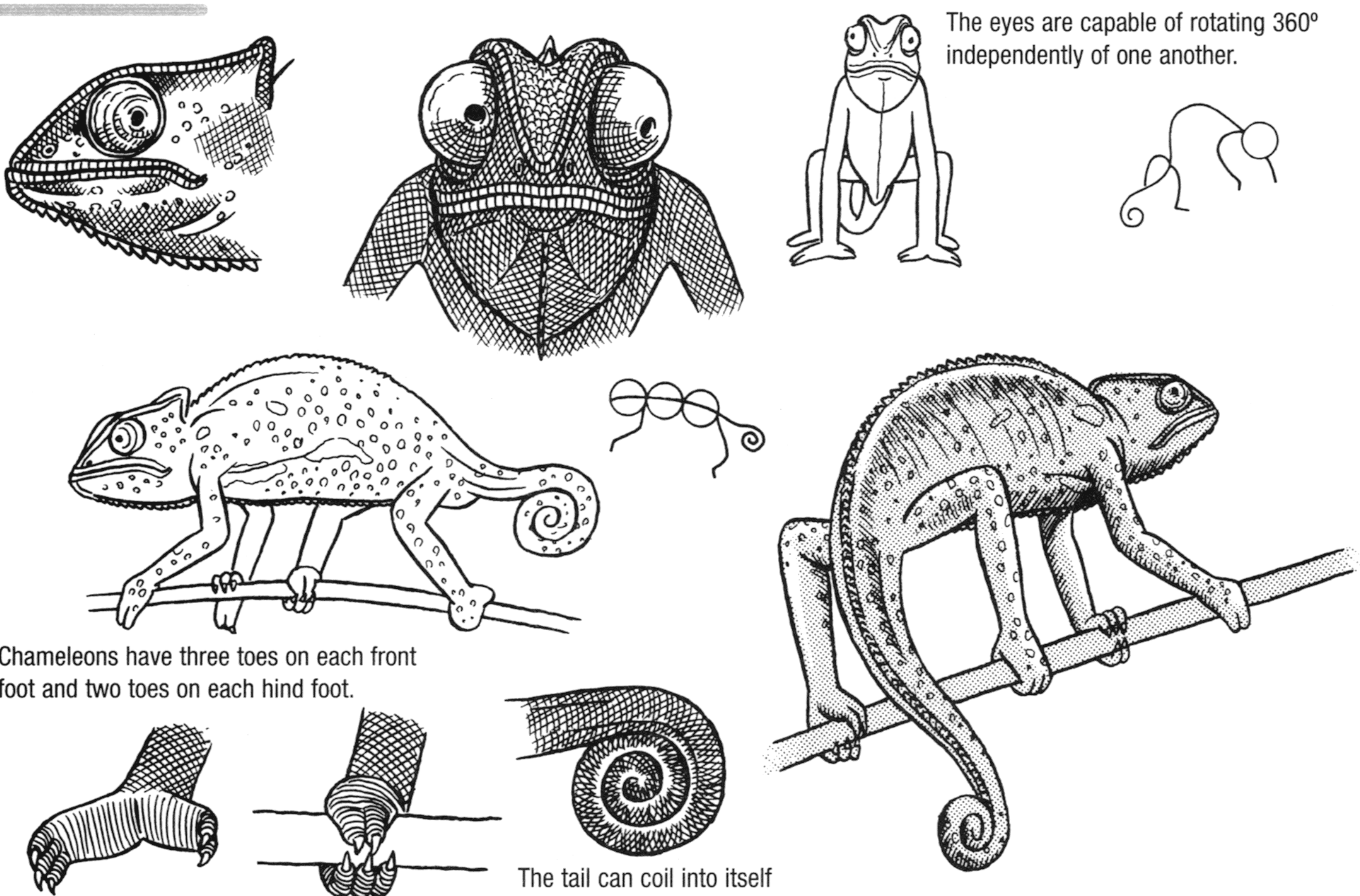
The head is virtually the same as that of a snake; however, raised skin should be present above the eyes to make the face appear more lizard-like.

The mouth has no teeth.

Without the tail, the lizard has a 1:6 to 1:7 head-to-body ratio. The tail increases the body's length by double or more.

The feet have five slender toes.

Lizards wiggle when they move.

Back

Belly

Geckos

Geckos tend to be tubbier than most lizards.

Draw the skin more as if covered in warts than in scales to give the gecko its distinctive look.

The toes are rounded at the ends (with suction cups on the underside).

Iguanas

The iguana lifts himself up on its front legs, raising its head approximately one head-height off the ground.

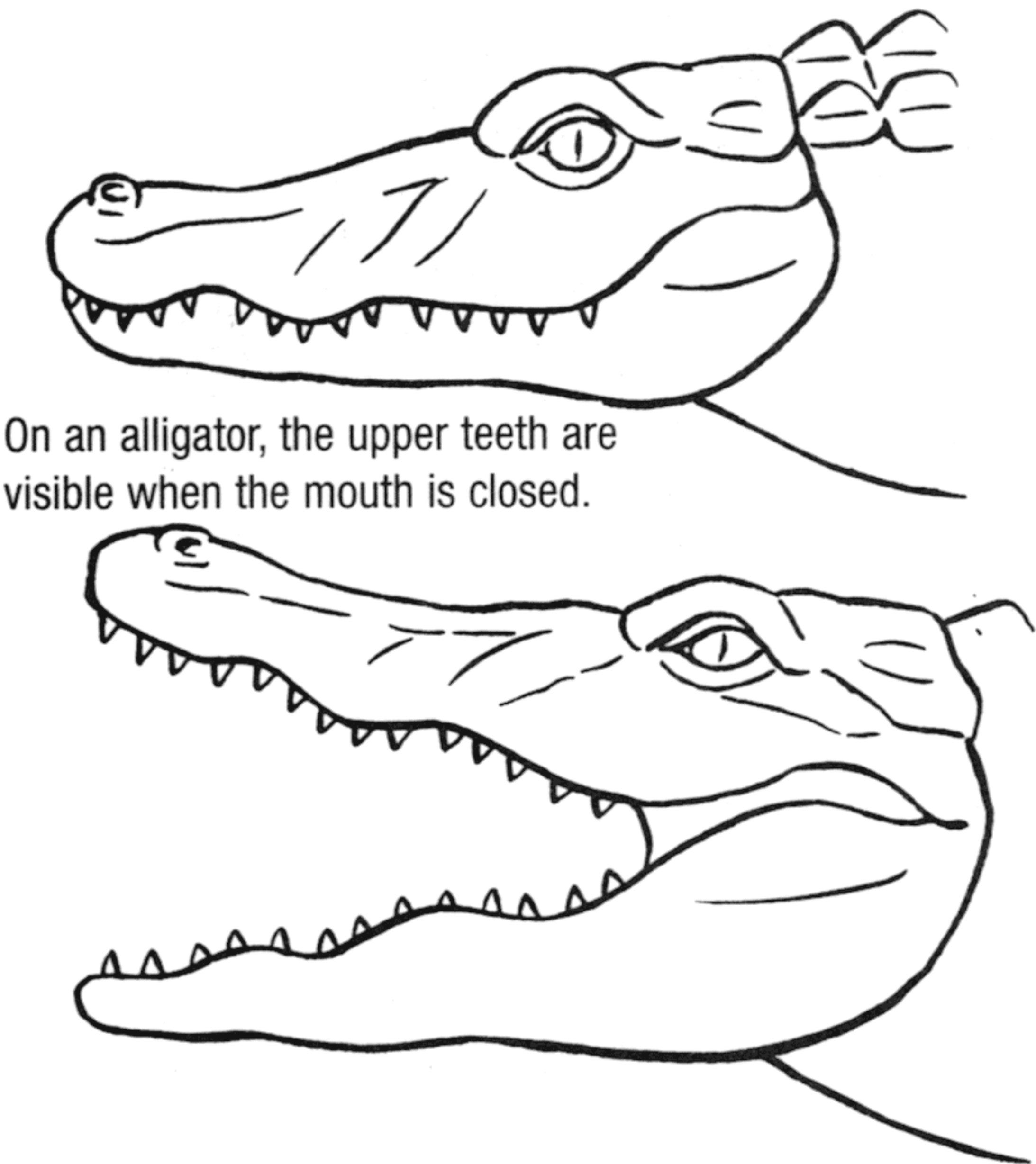
Chameleons

The eyes are capable of rotating 360º independently of one another.

Chameleons have three toes on each front foot and two toes on each hind foot.

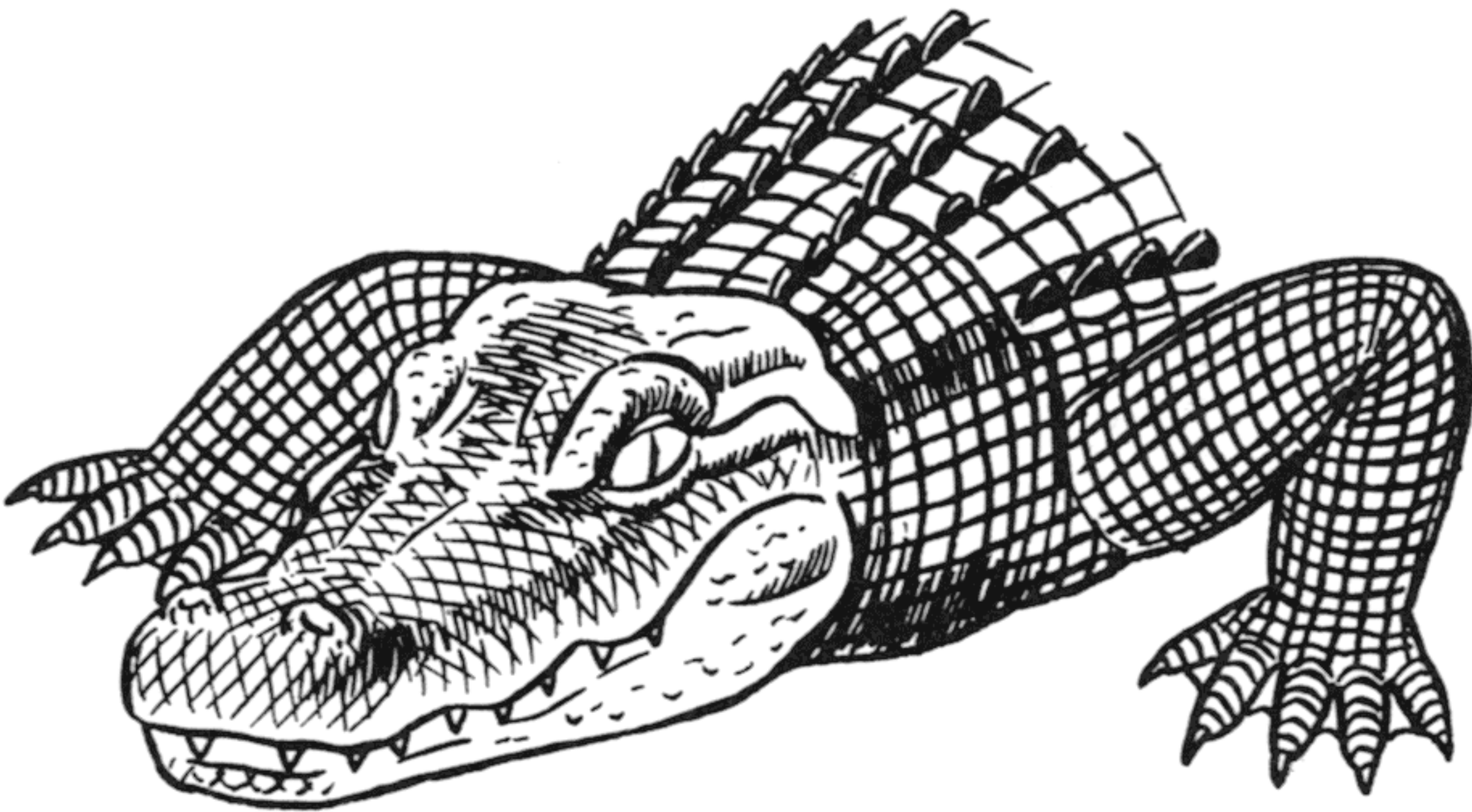
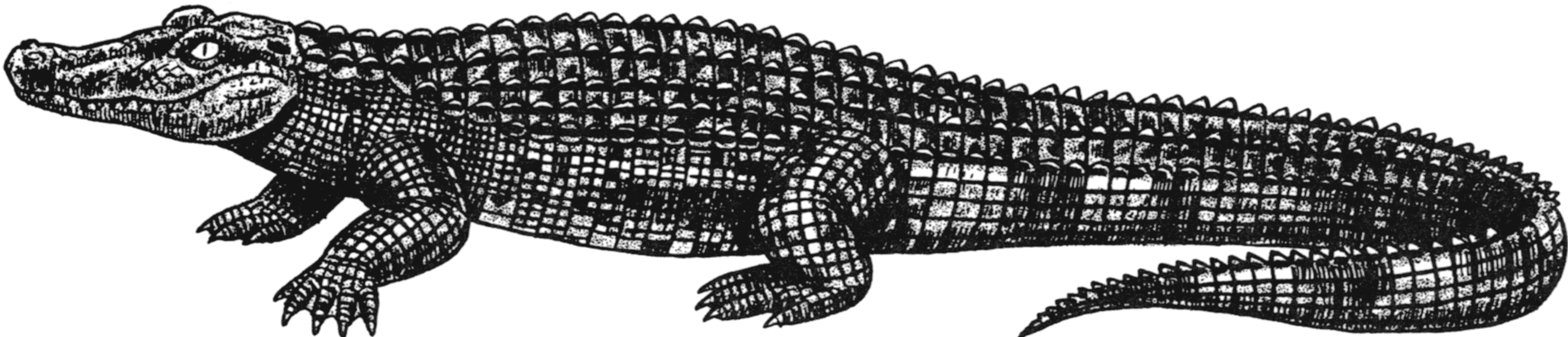
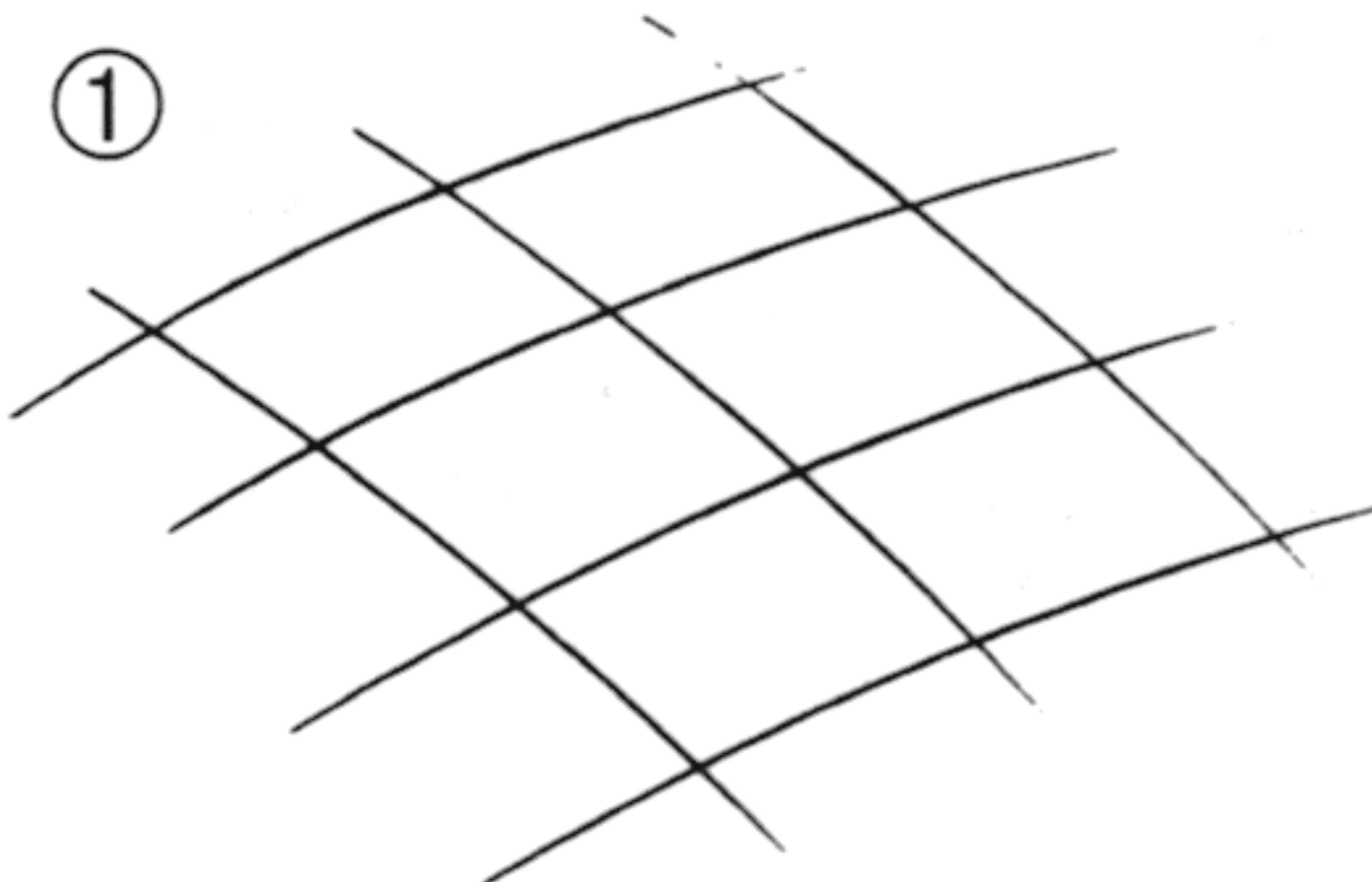
The tail can coil into itself two to three times.

Alligators and Crocodiles

Give the scales on an alligator or crocodiles back a rugged, angular look to evoke the feeling of the animal's stiff hide.

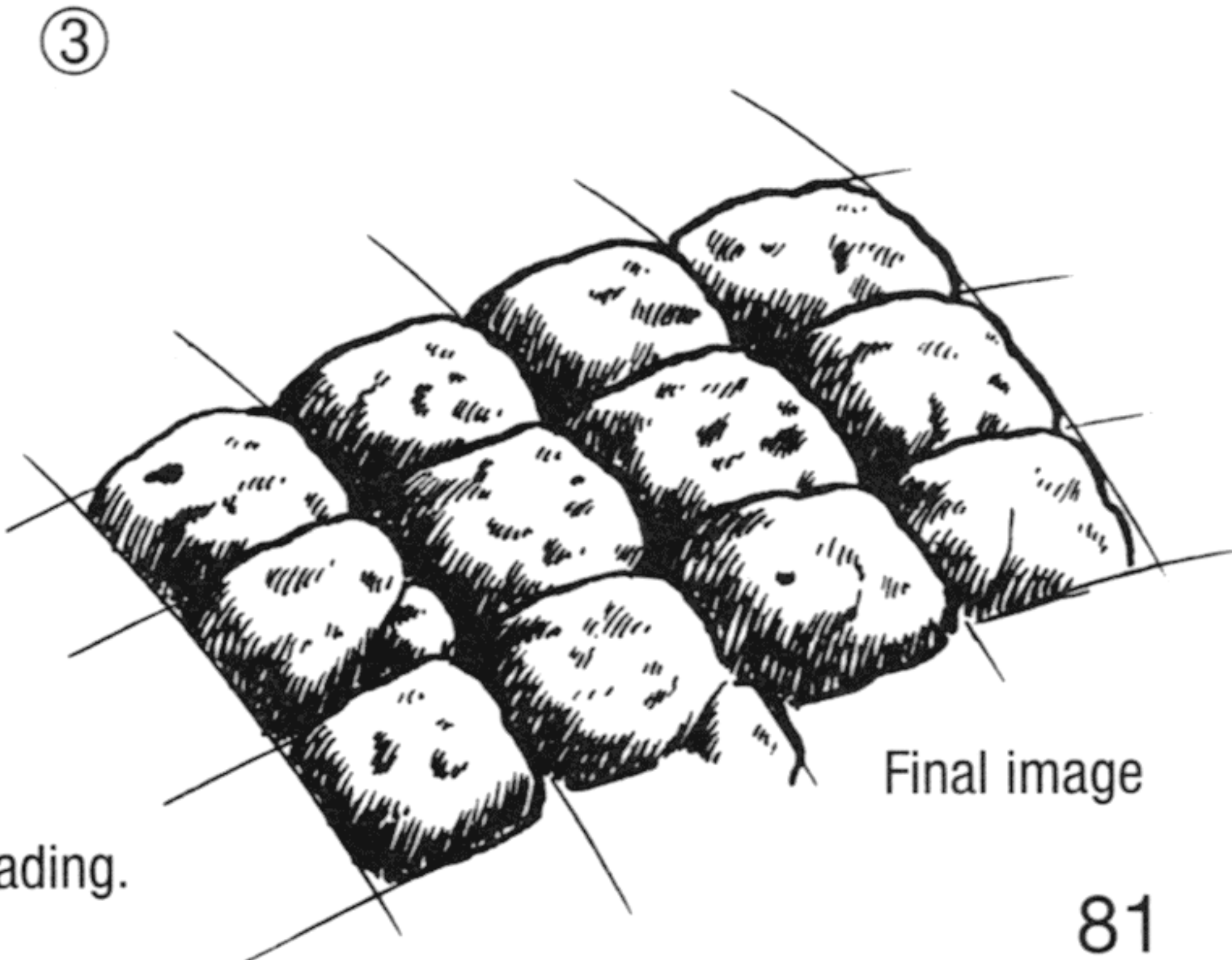
On an alligator, the upper teeth are visible when the mouth is closed.

On a crocodile, both the upper and lower teeth are visible when the mouth is closed.

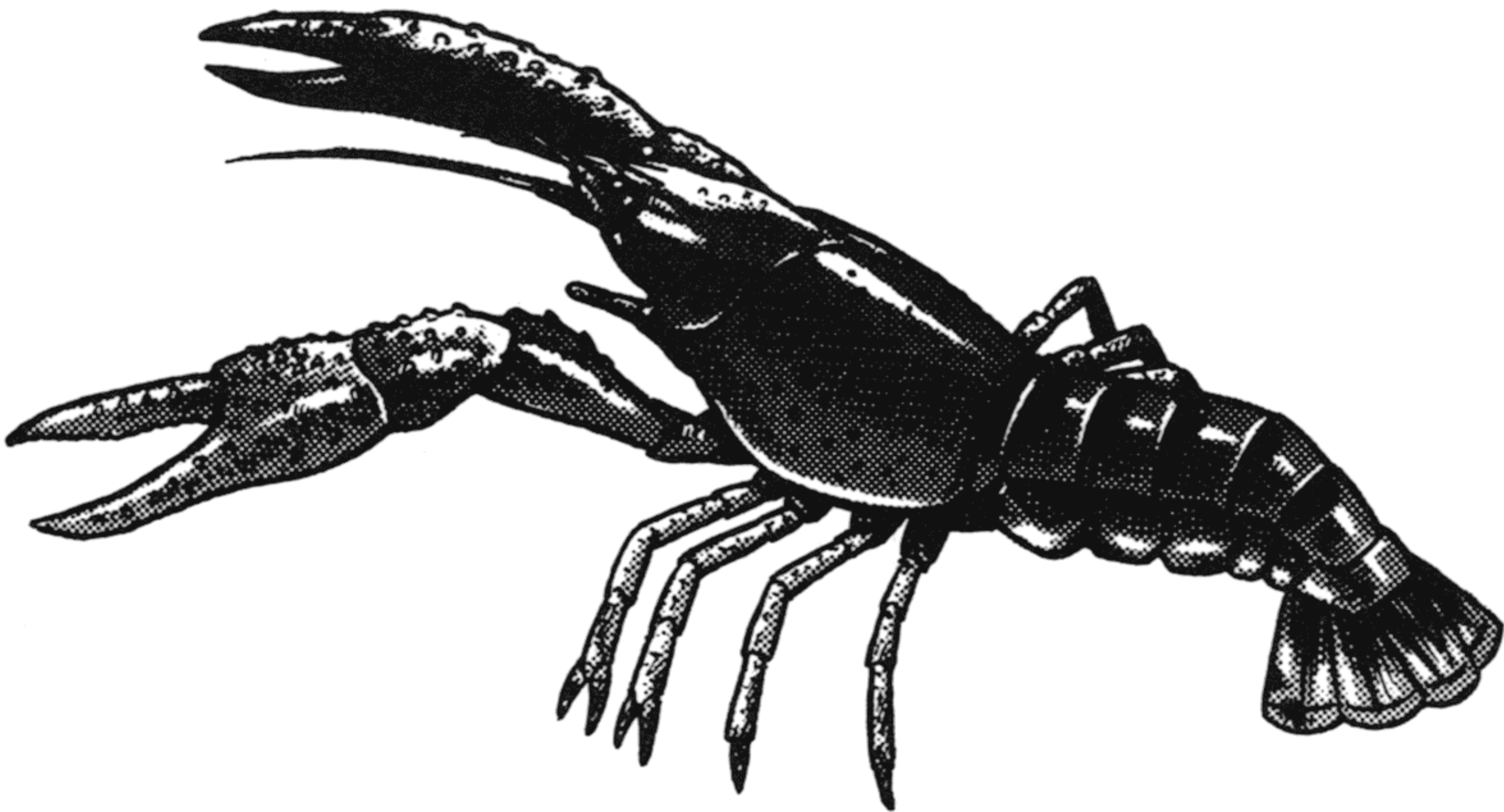
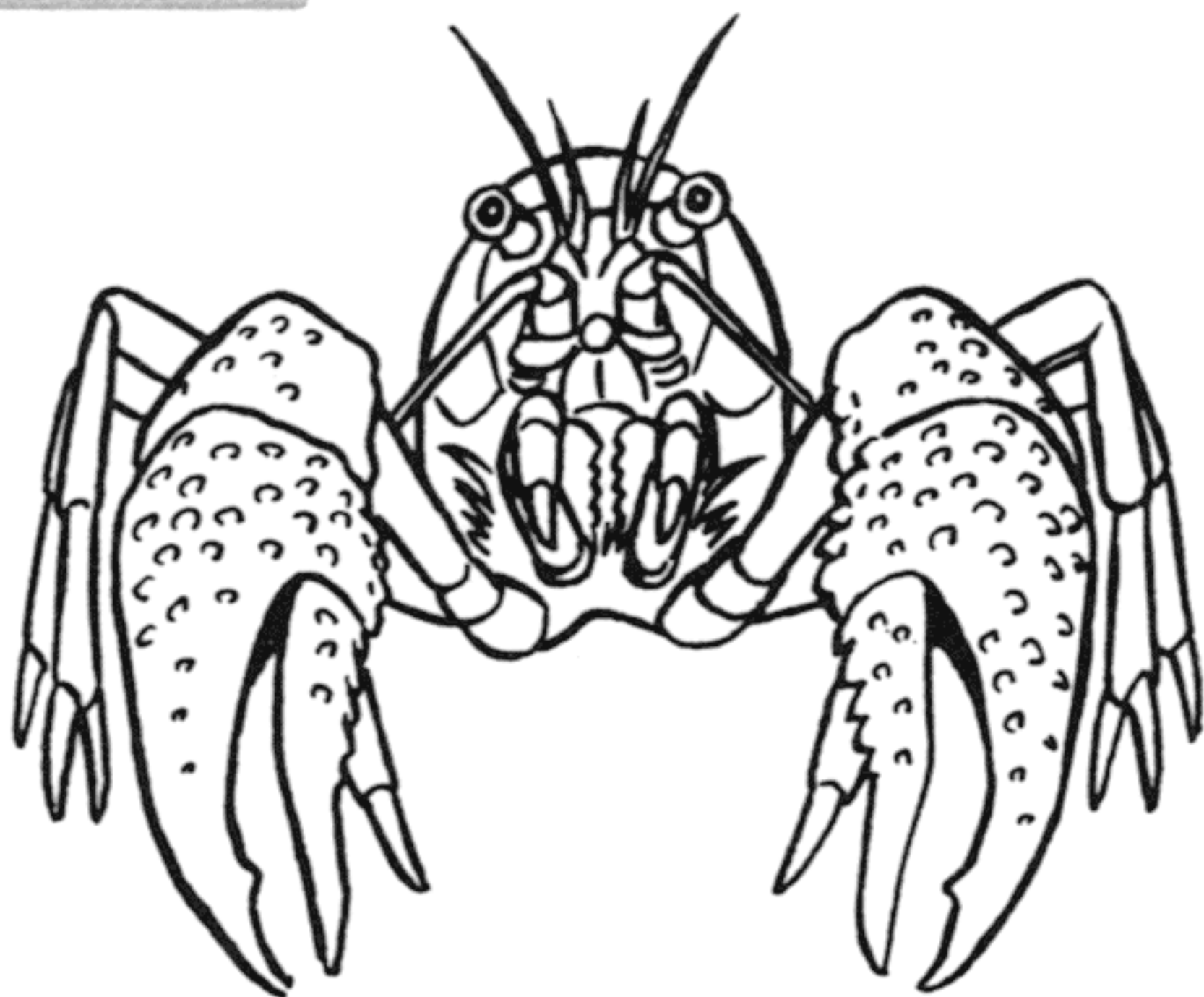
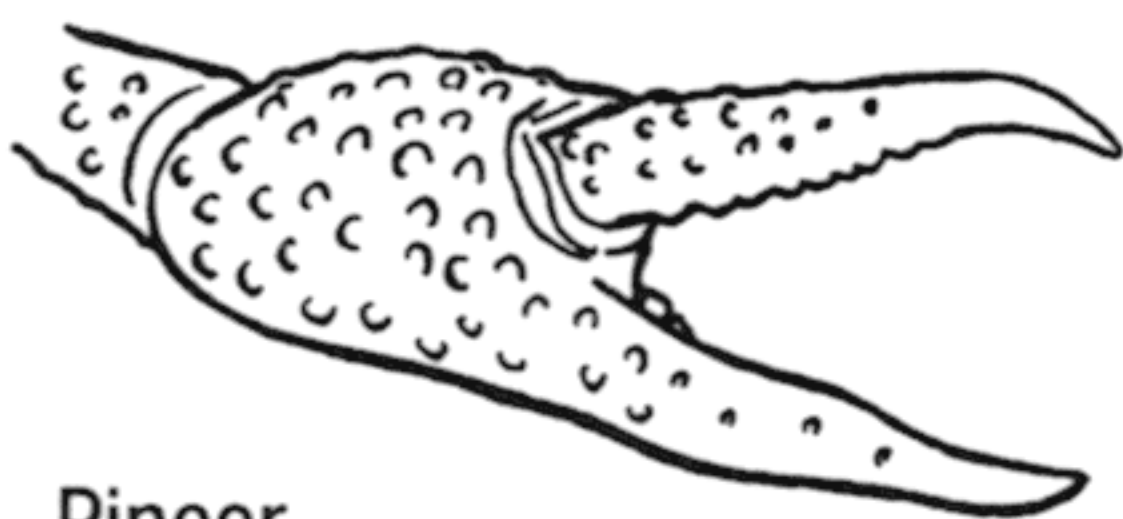
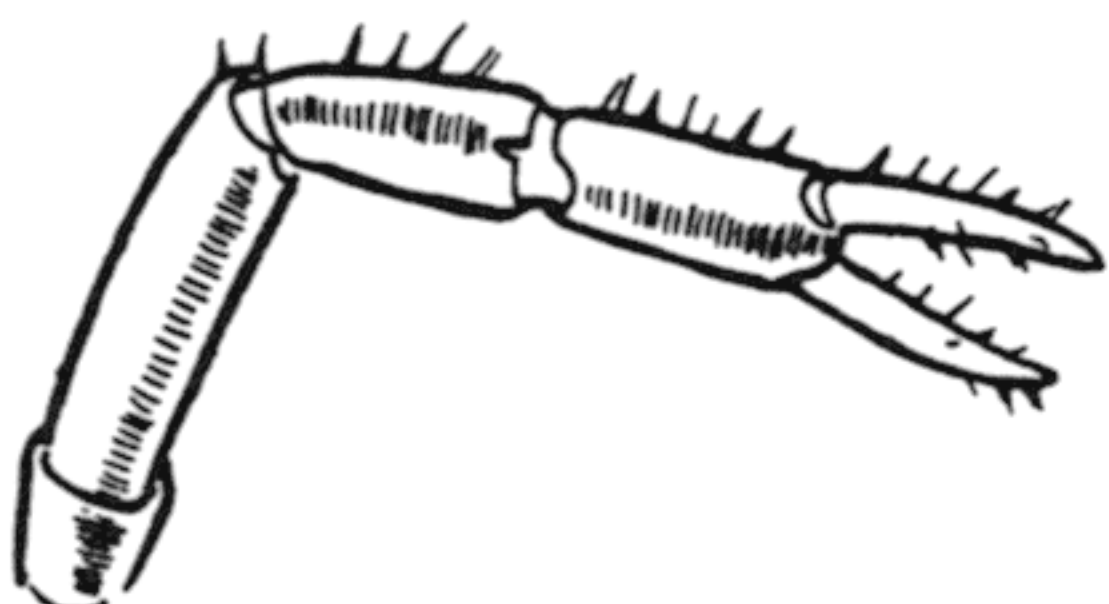
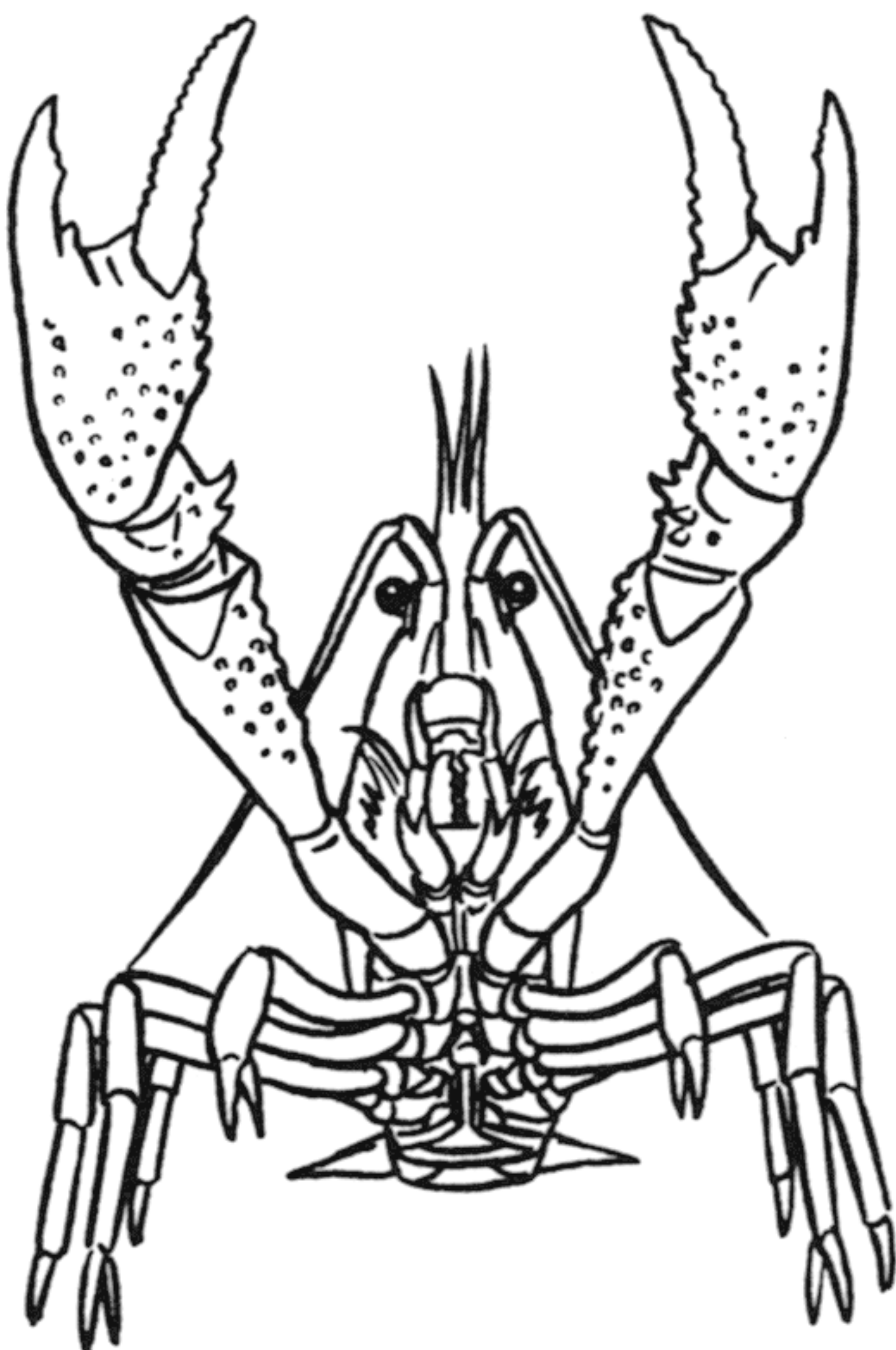
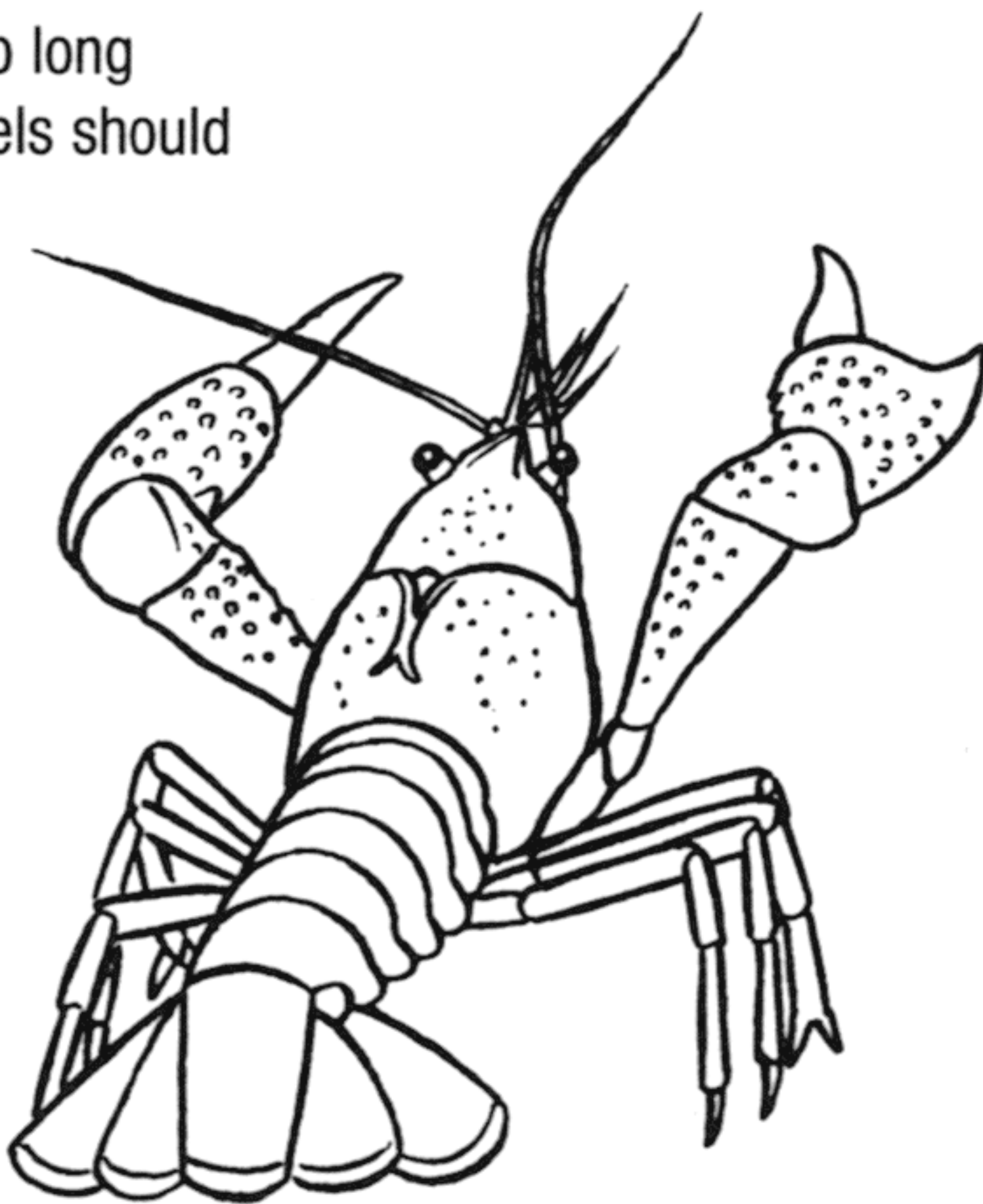
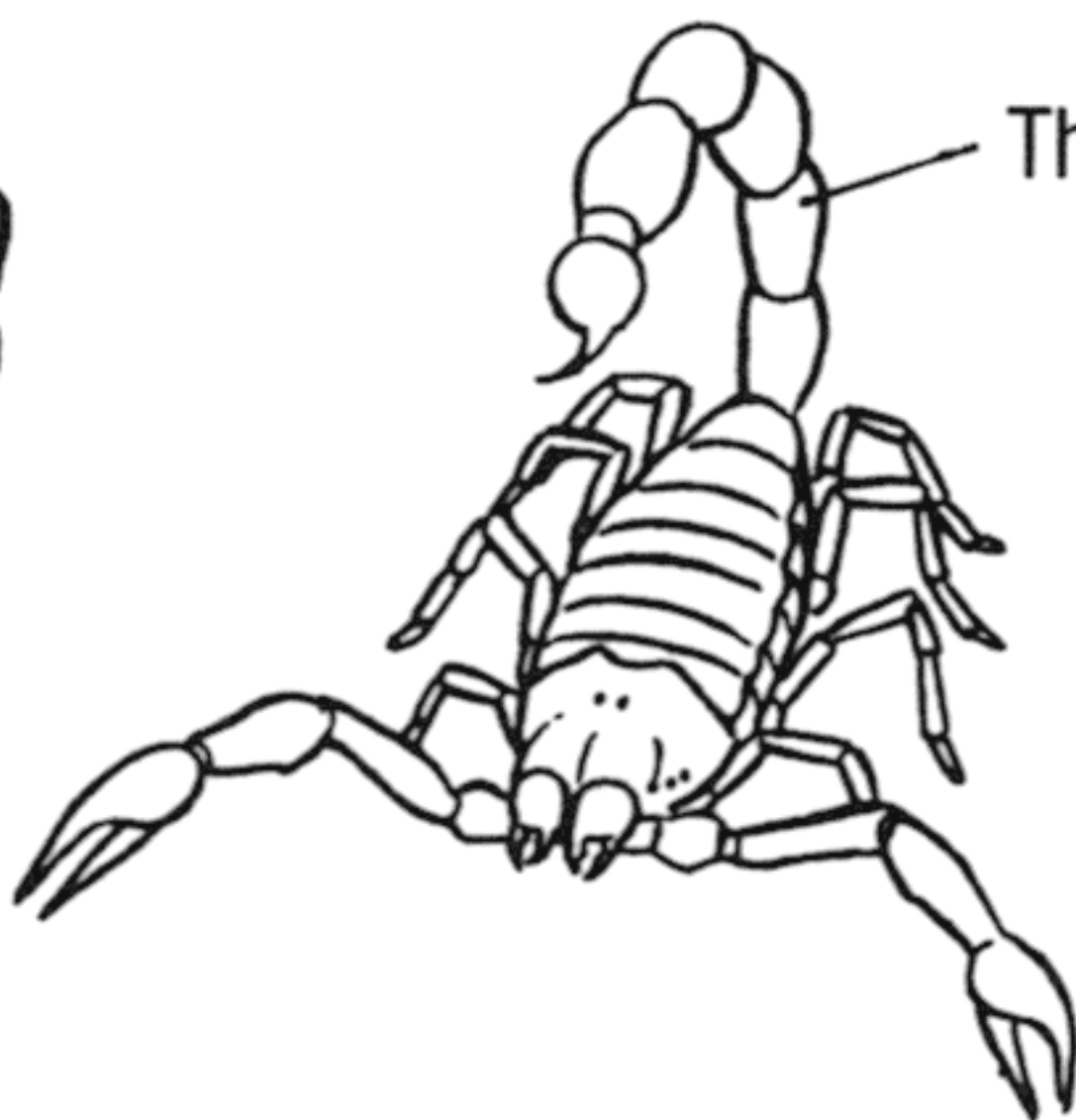
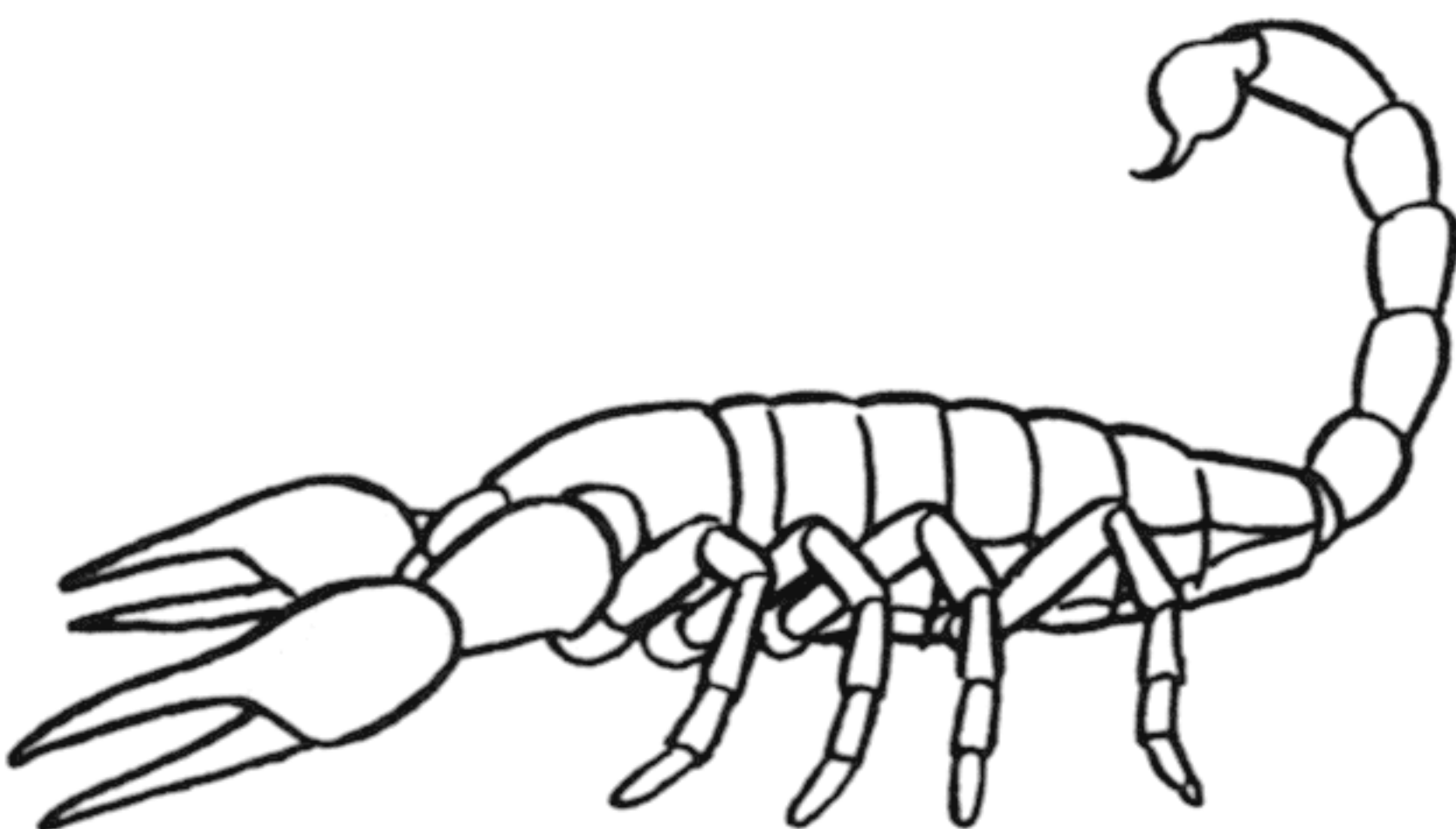
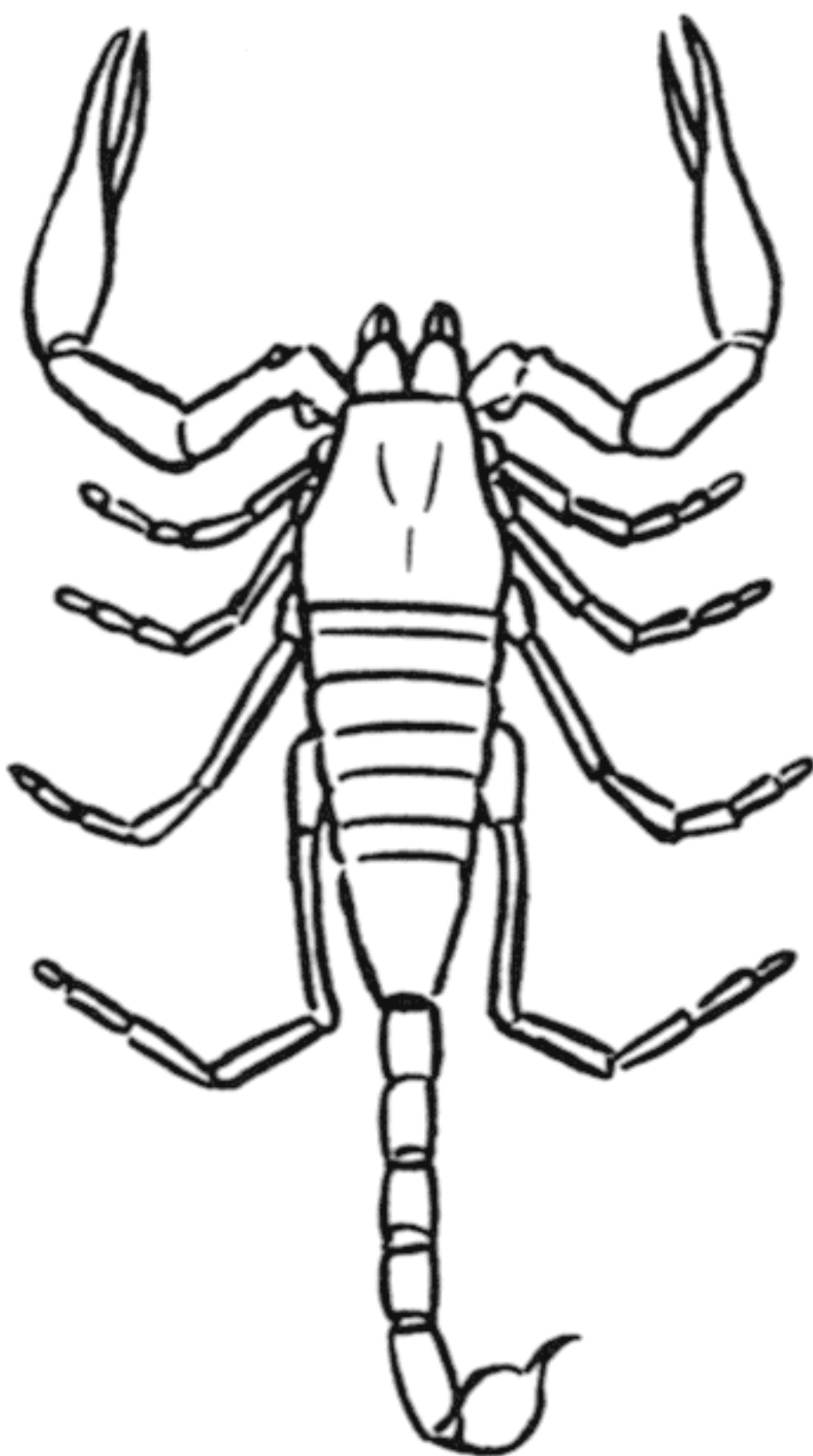
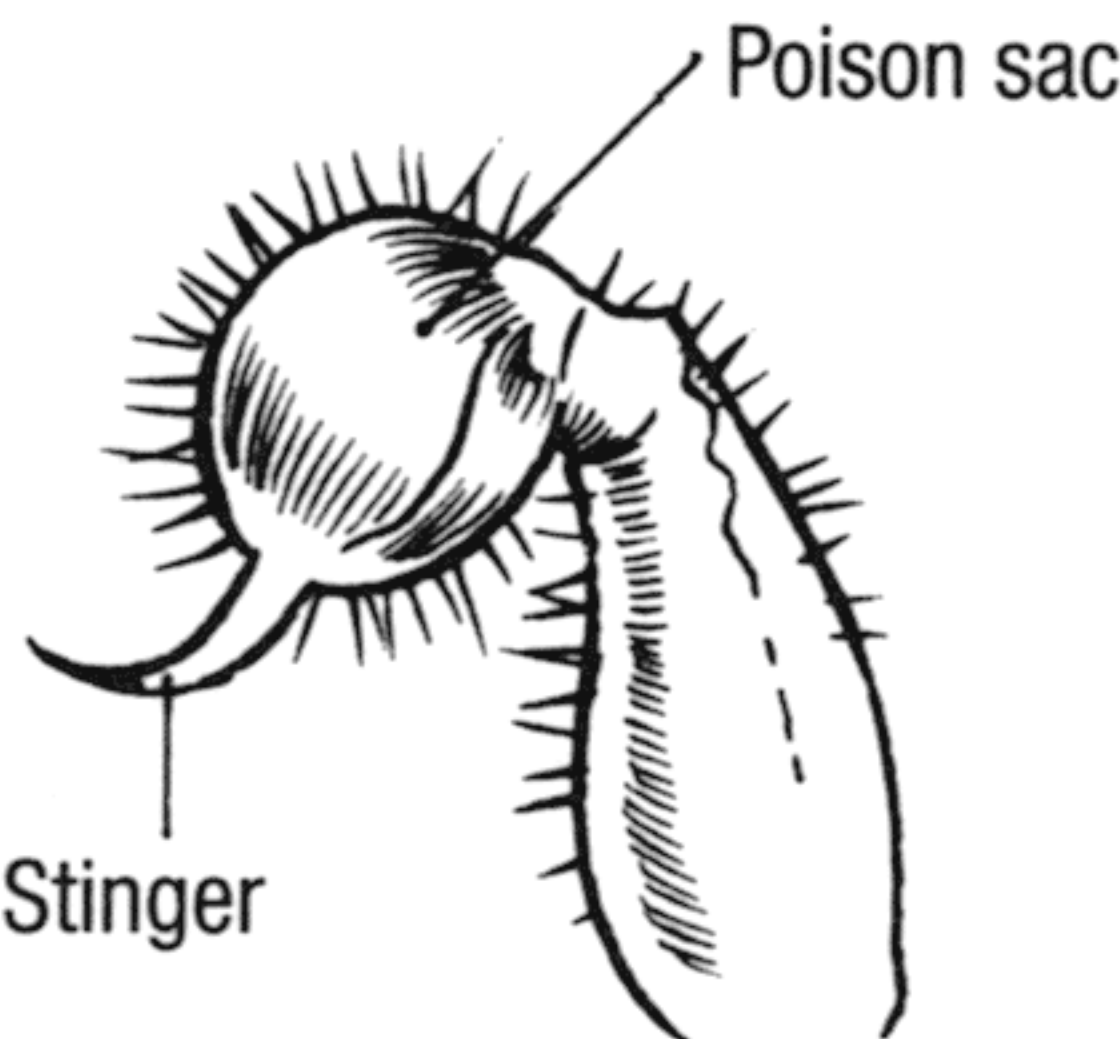
Drawing the Scales

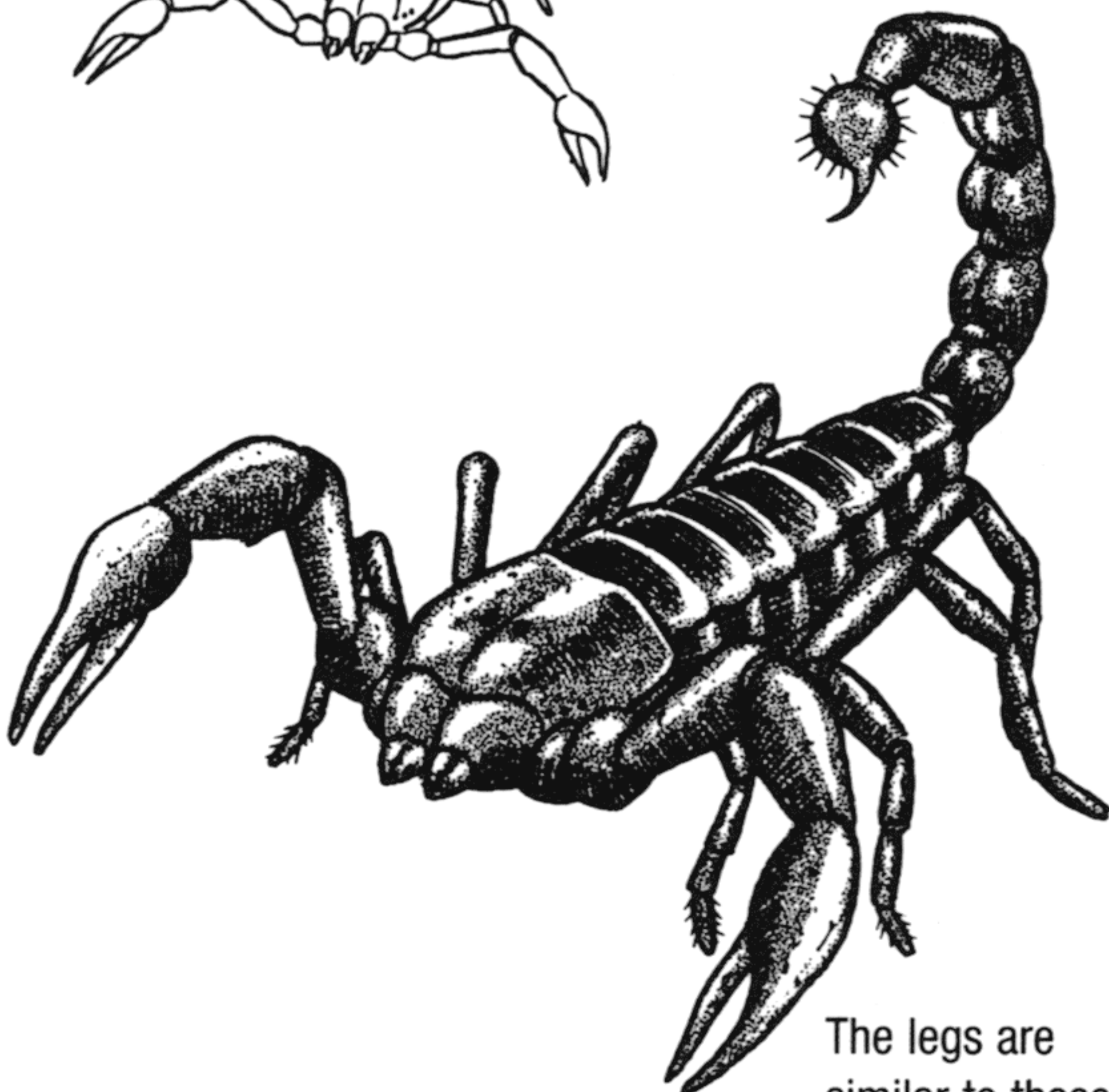
①

Draw the layout lines adhering to the body's curved surface.

②

Draw coarse, irregular blocks that are reminiscent of alligator hide and add shading.

③

Final image

Crayfish

Excluding the pincers, crayfish have four legs on each side for a total of eight. Giving the figure two long barbells (feelers) and two to four short barbels should create an authentic looking crayfish.

Pincer

Leg

Scorpions

The tail has six joints.

Poison sac

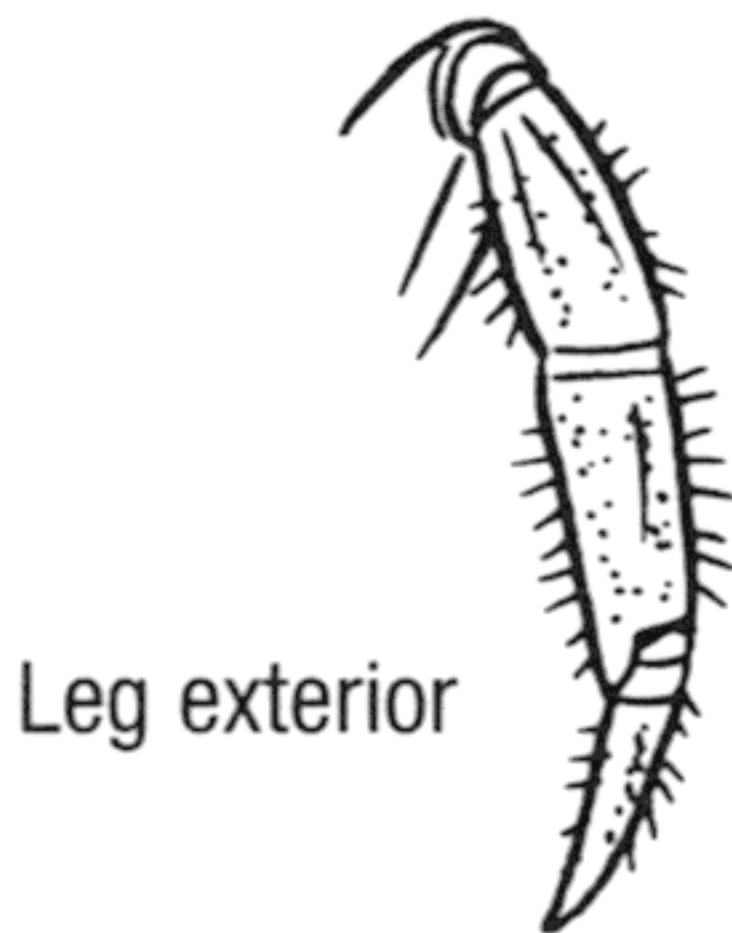
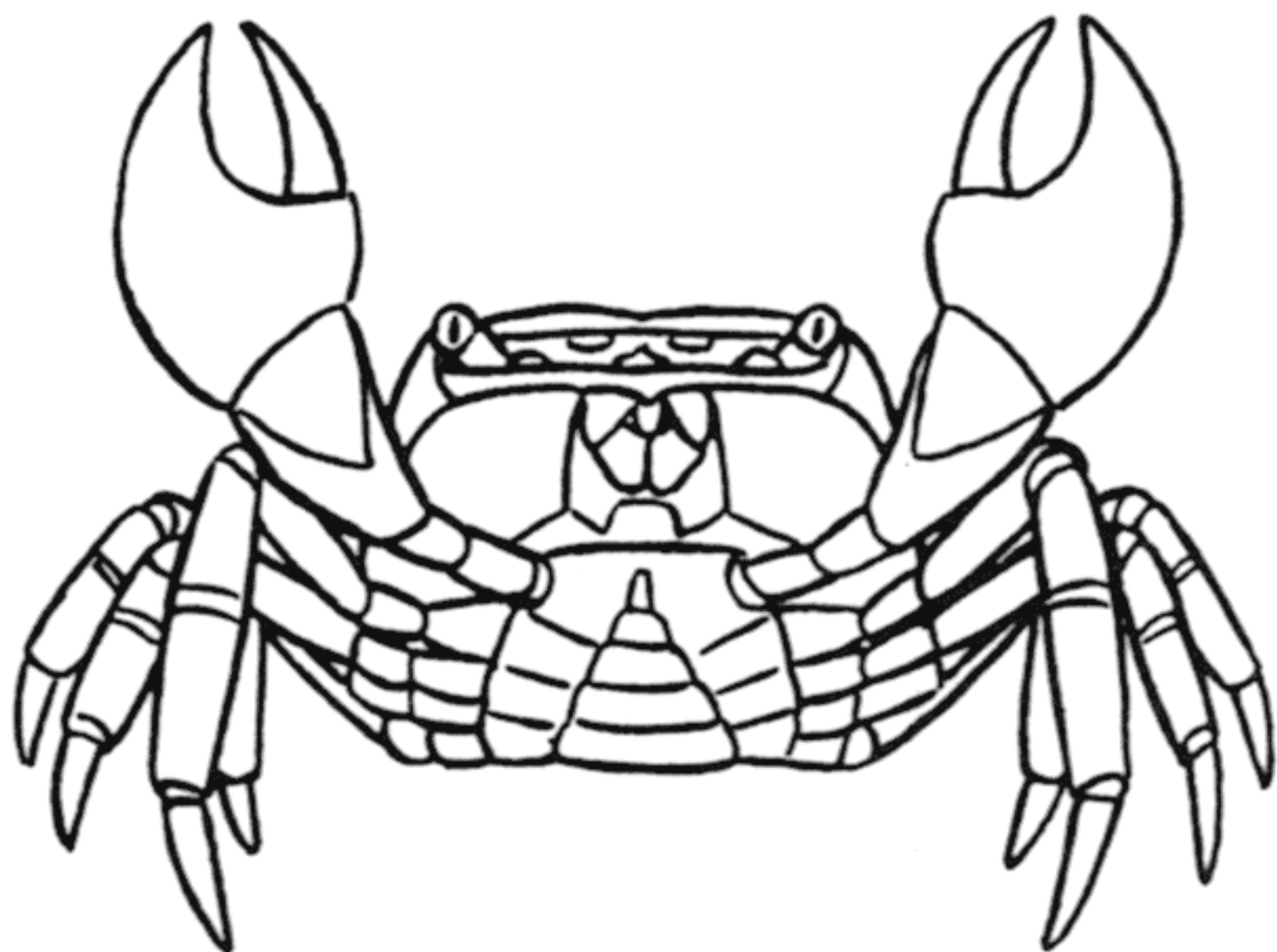
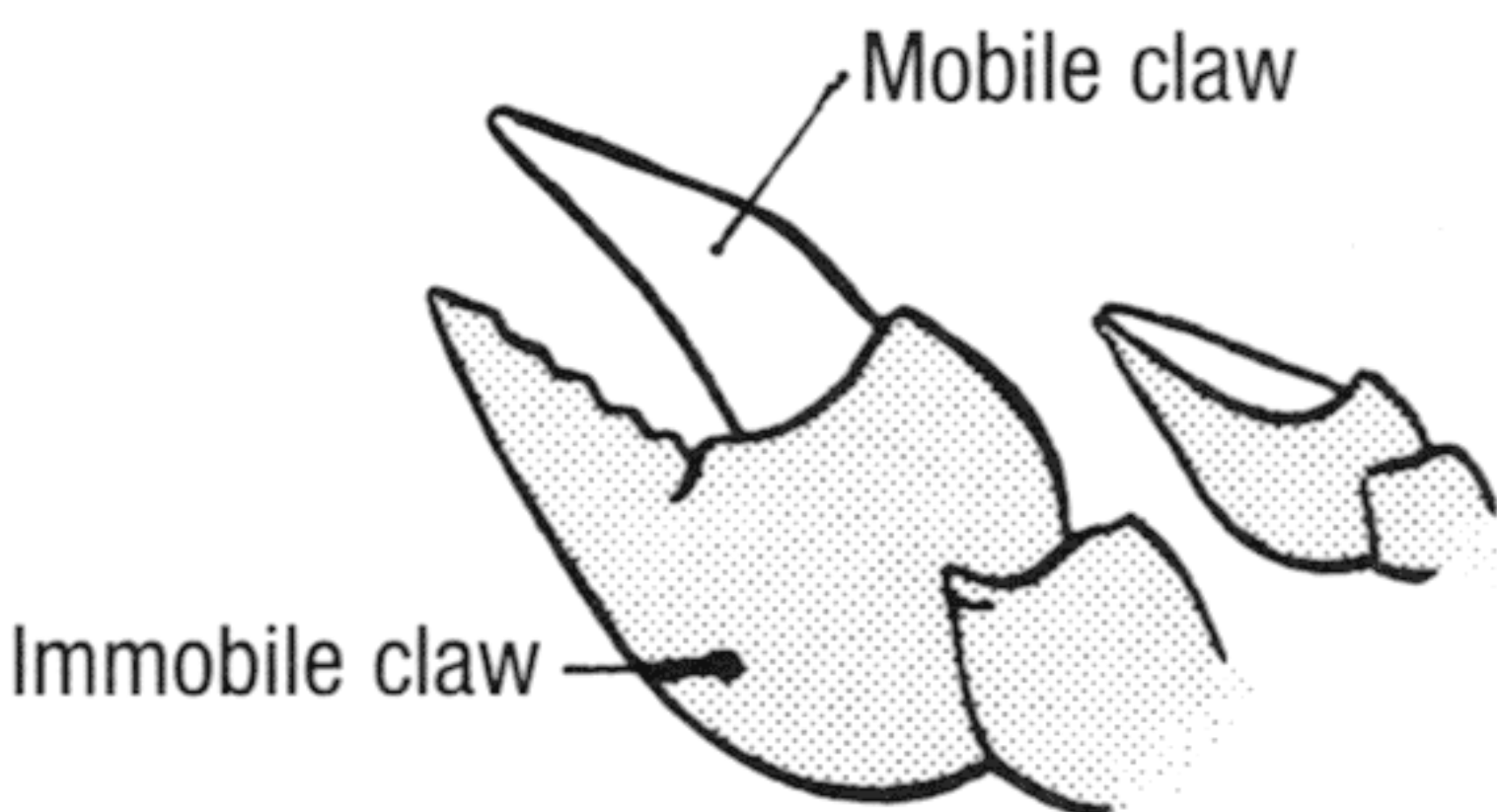
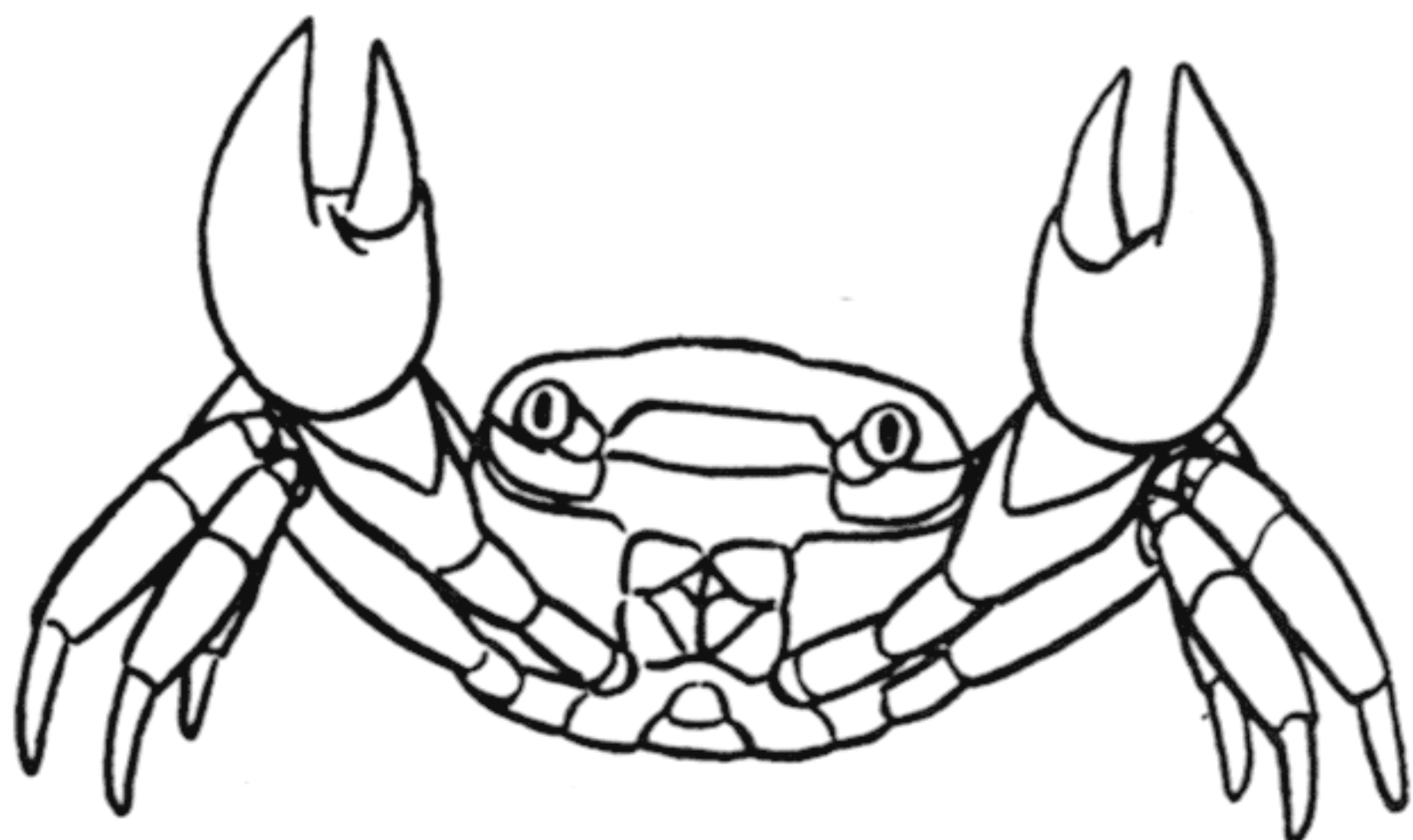
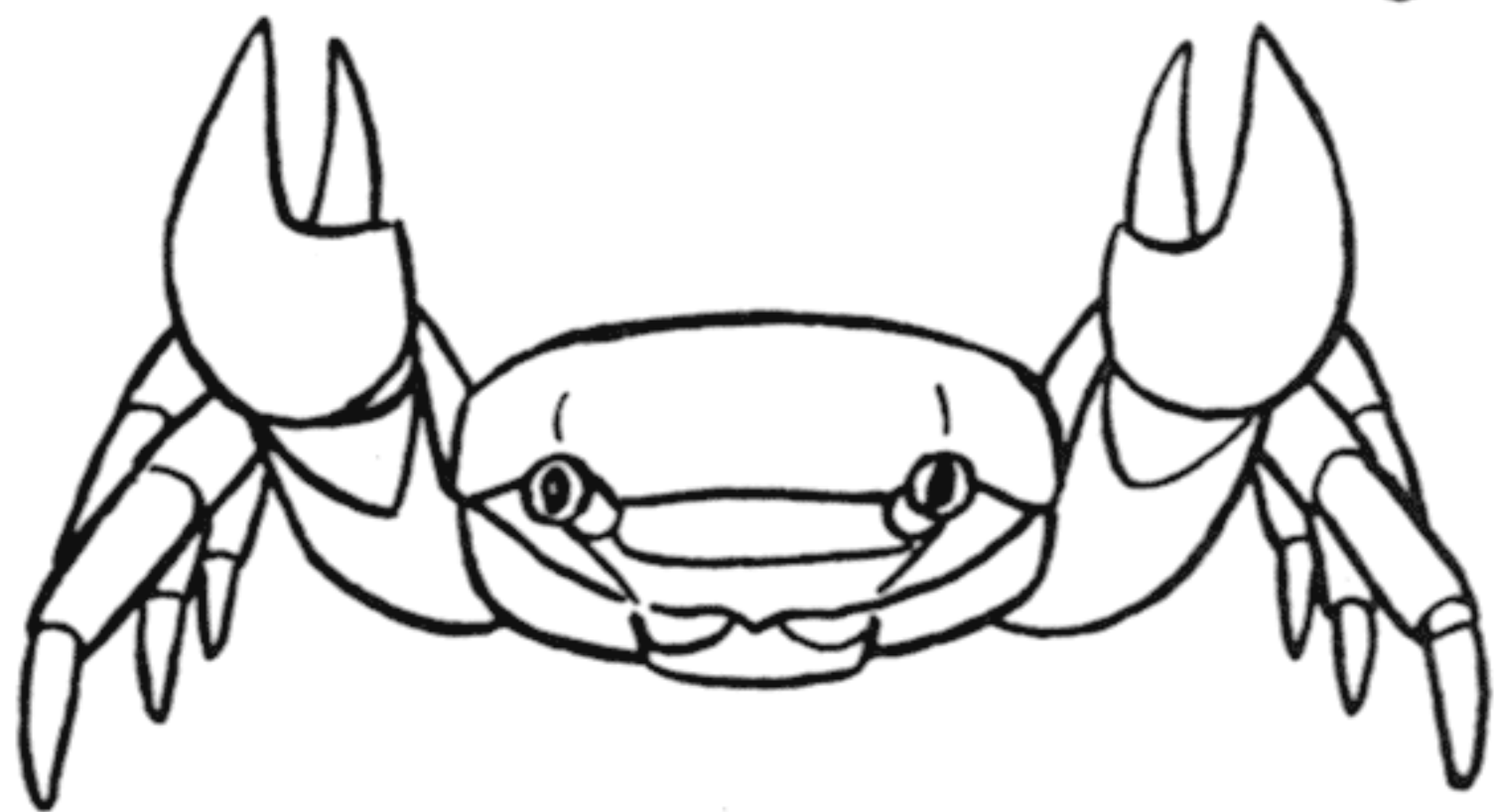
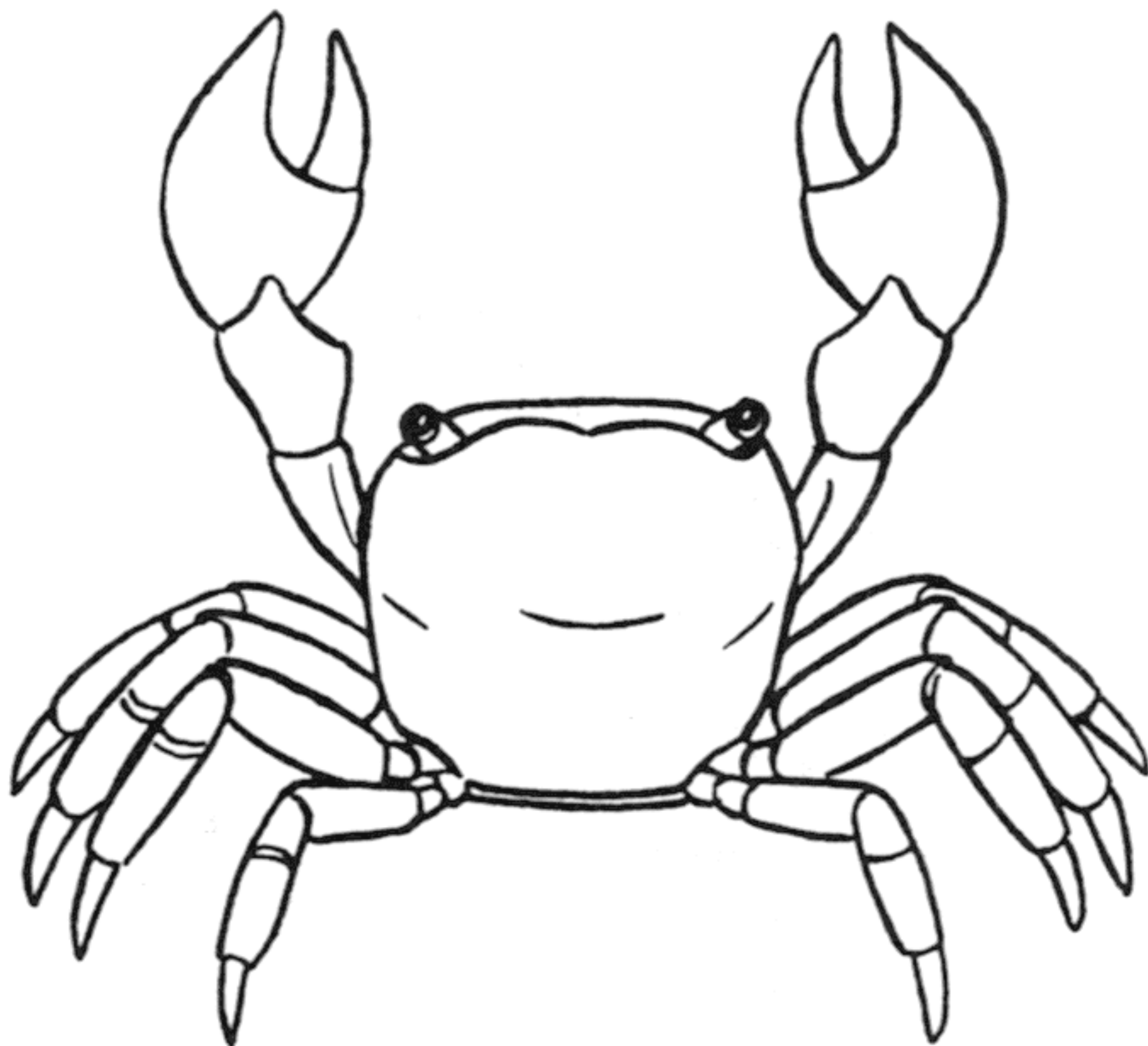
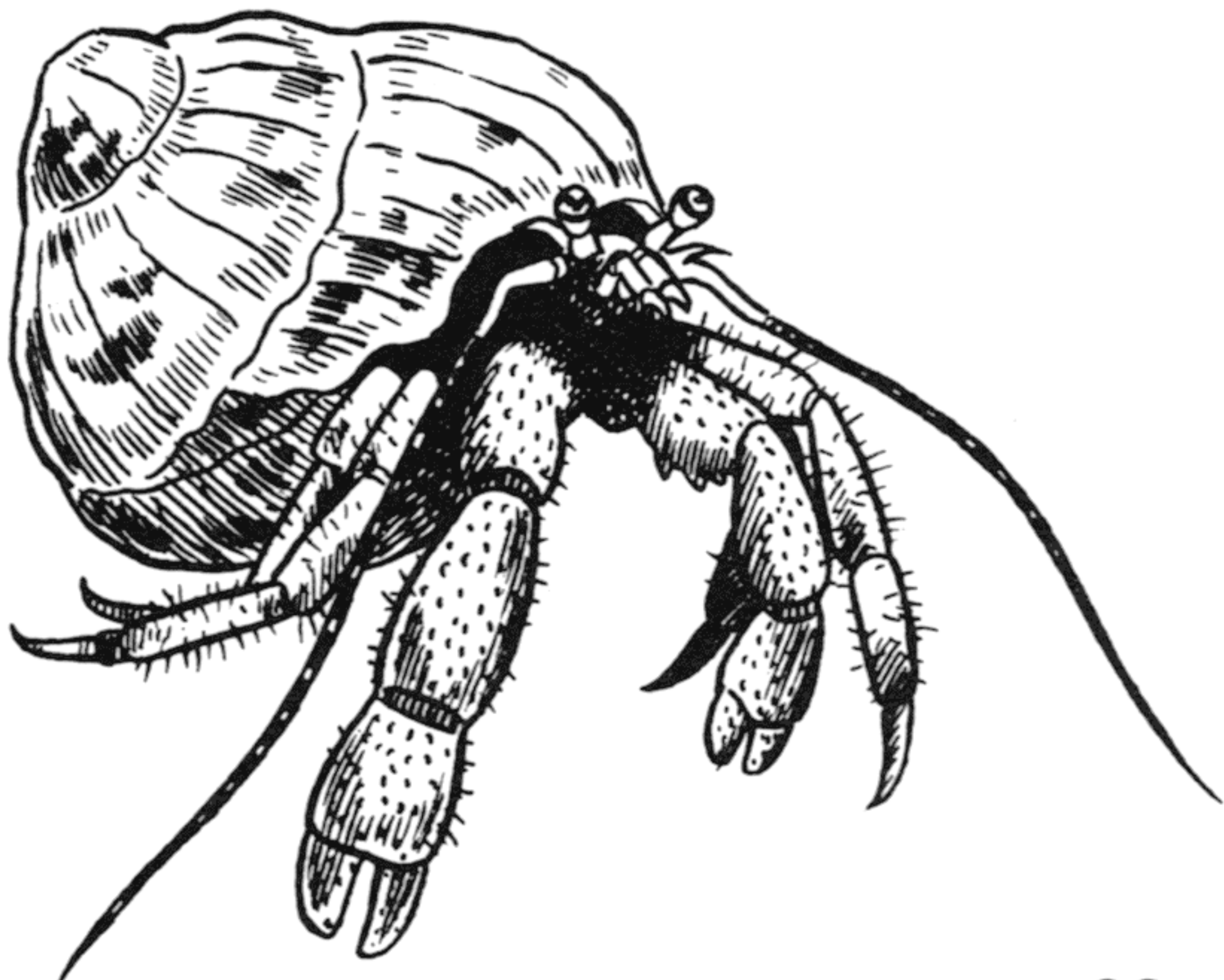
Stinger

The legs are similar to those of a spider.

Crabs

Mobile claw

Immobile claw

Leg exterior

Eye

Hermit Crabs

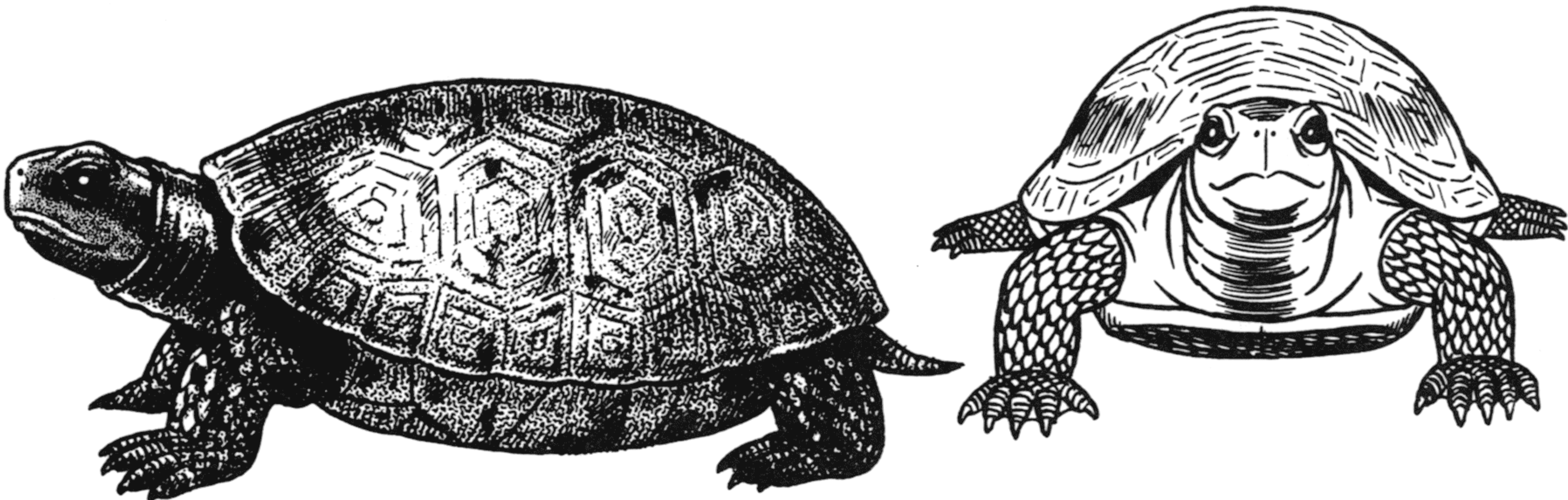
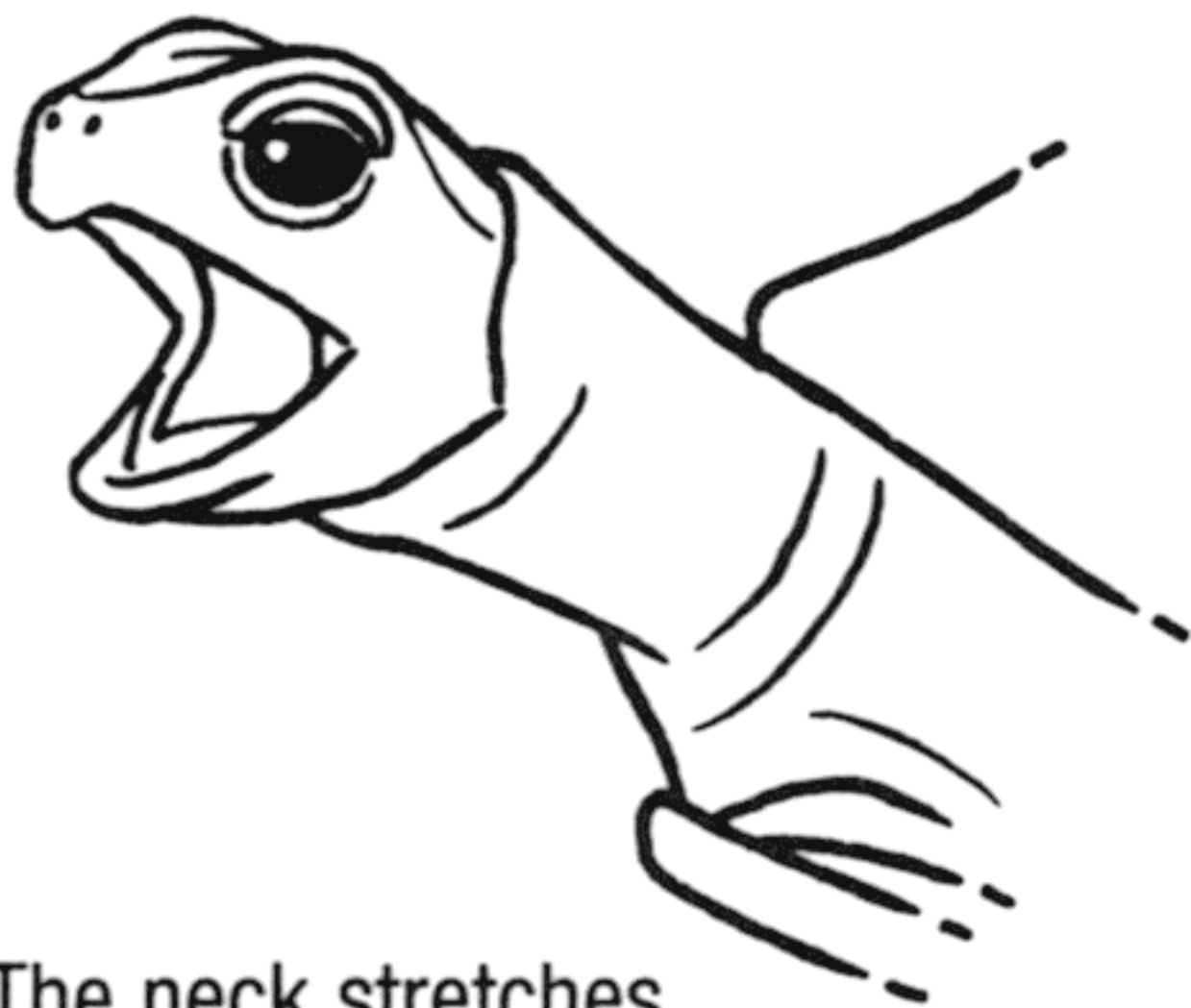
Other than the pincers, only two legs on either side of the hermit crab emerge from its shell, while two more pairs remain inside.

Turtles

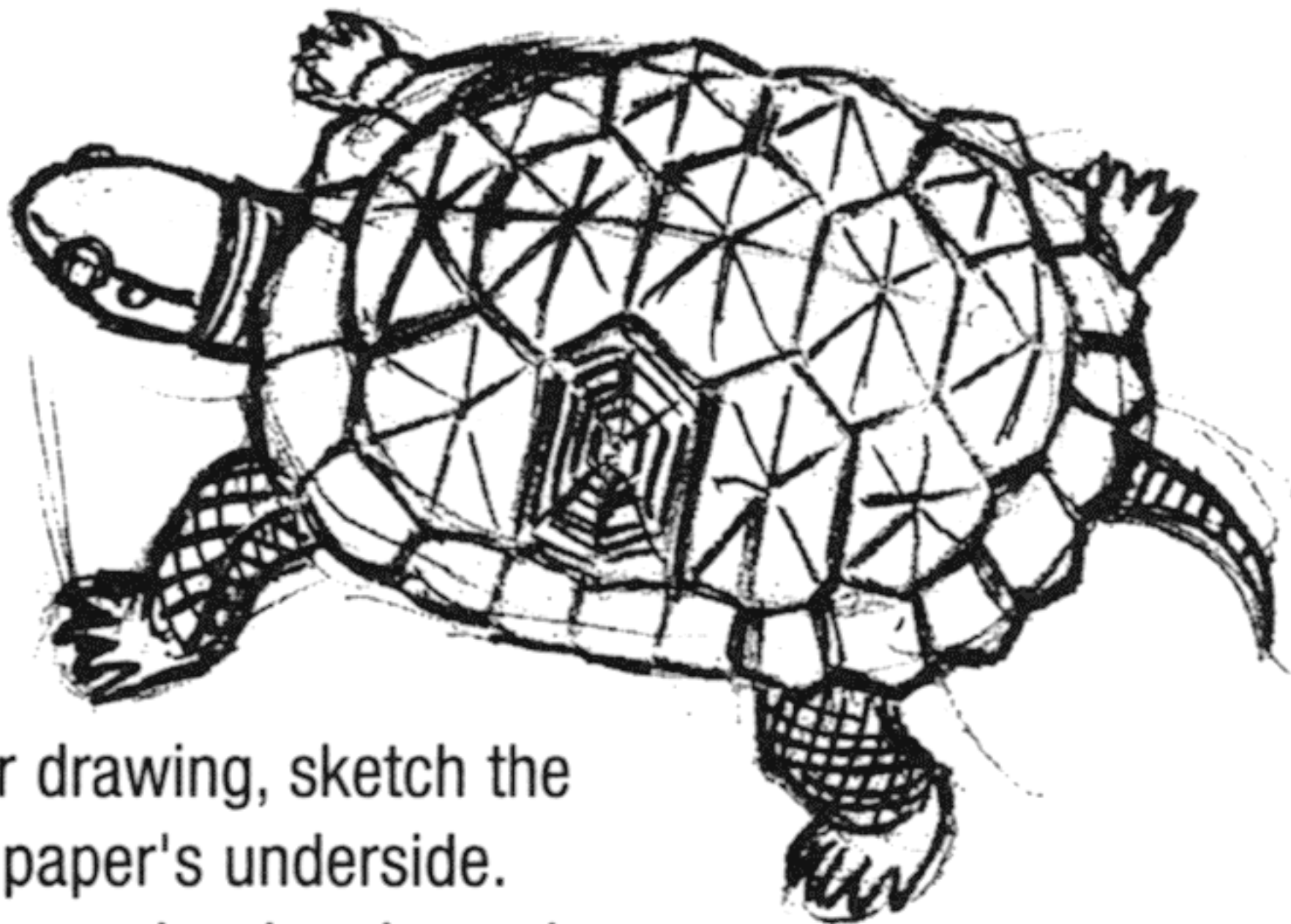
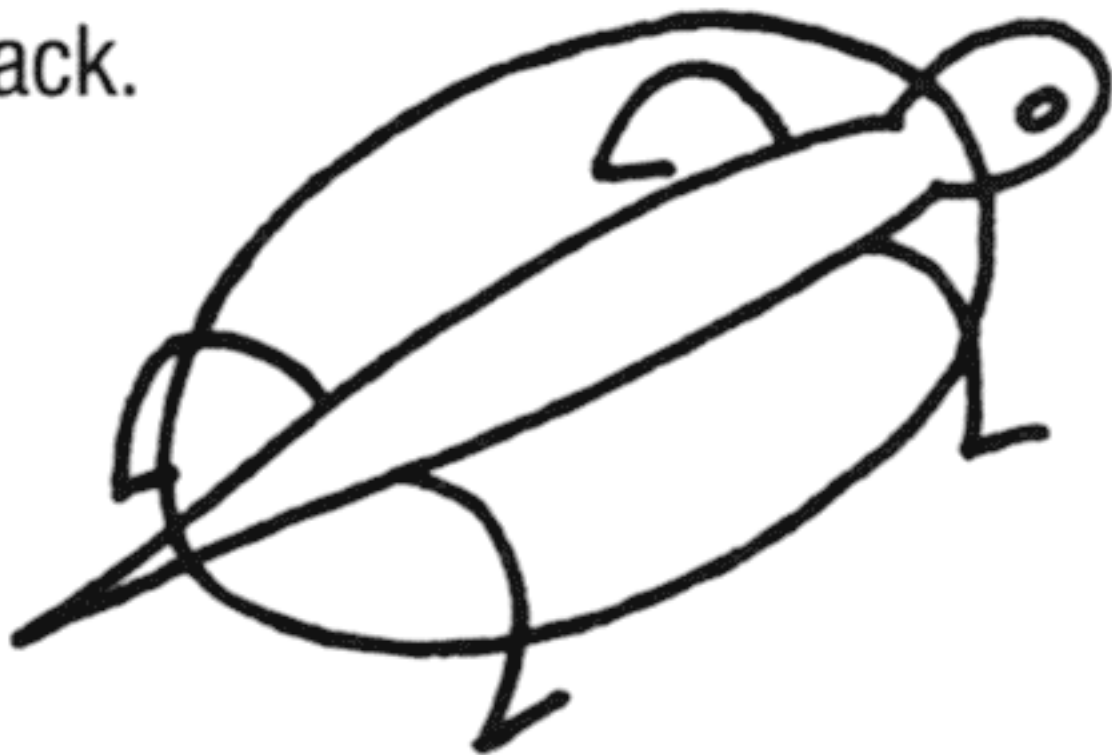
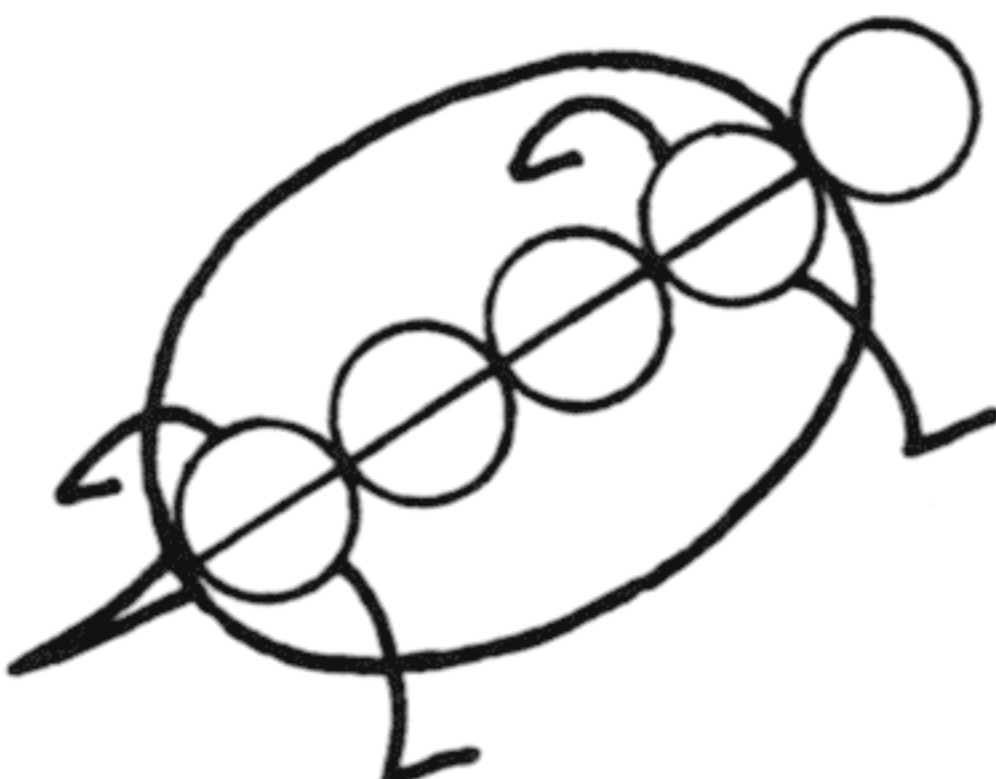
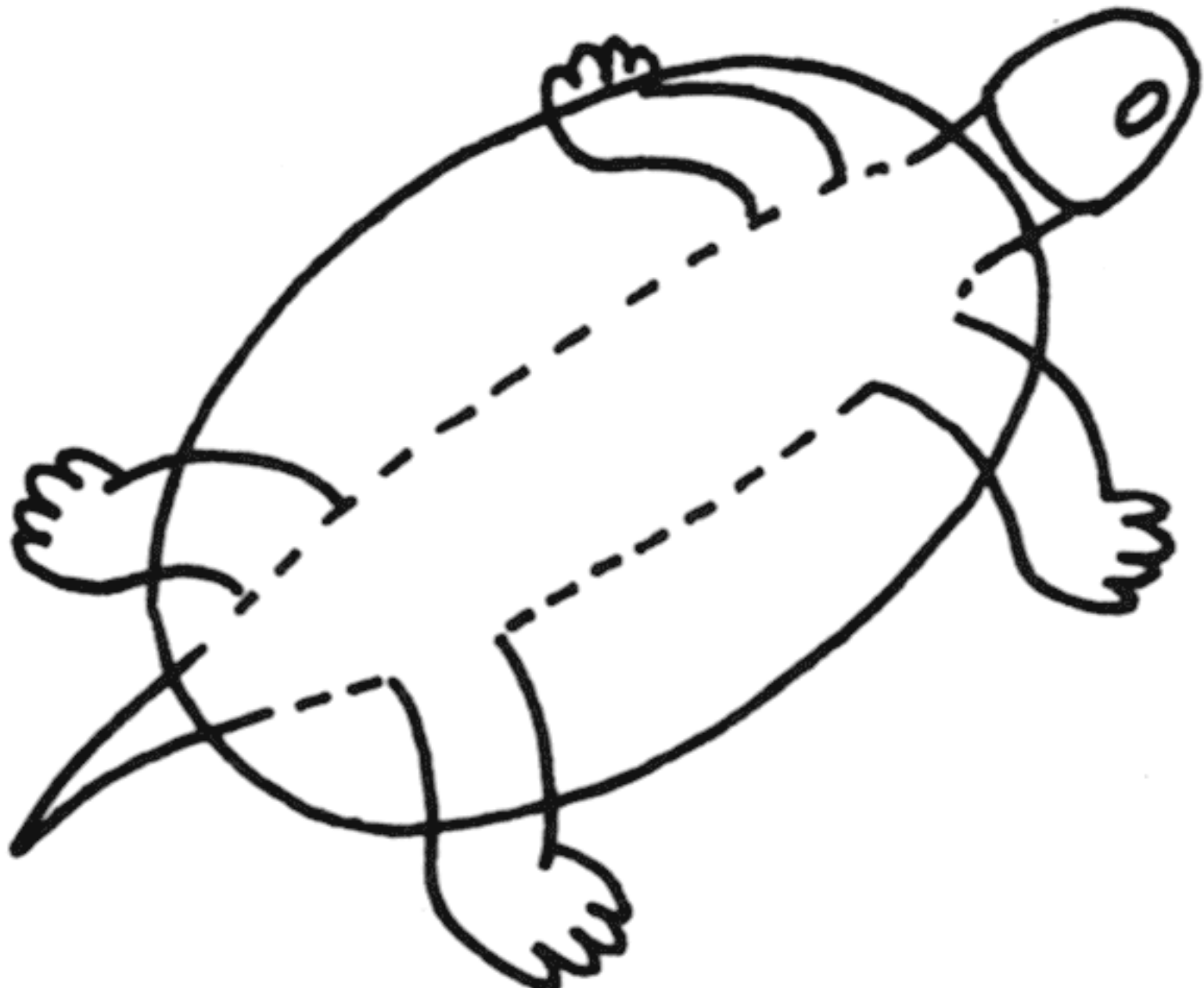
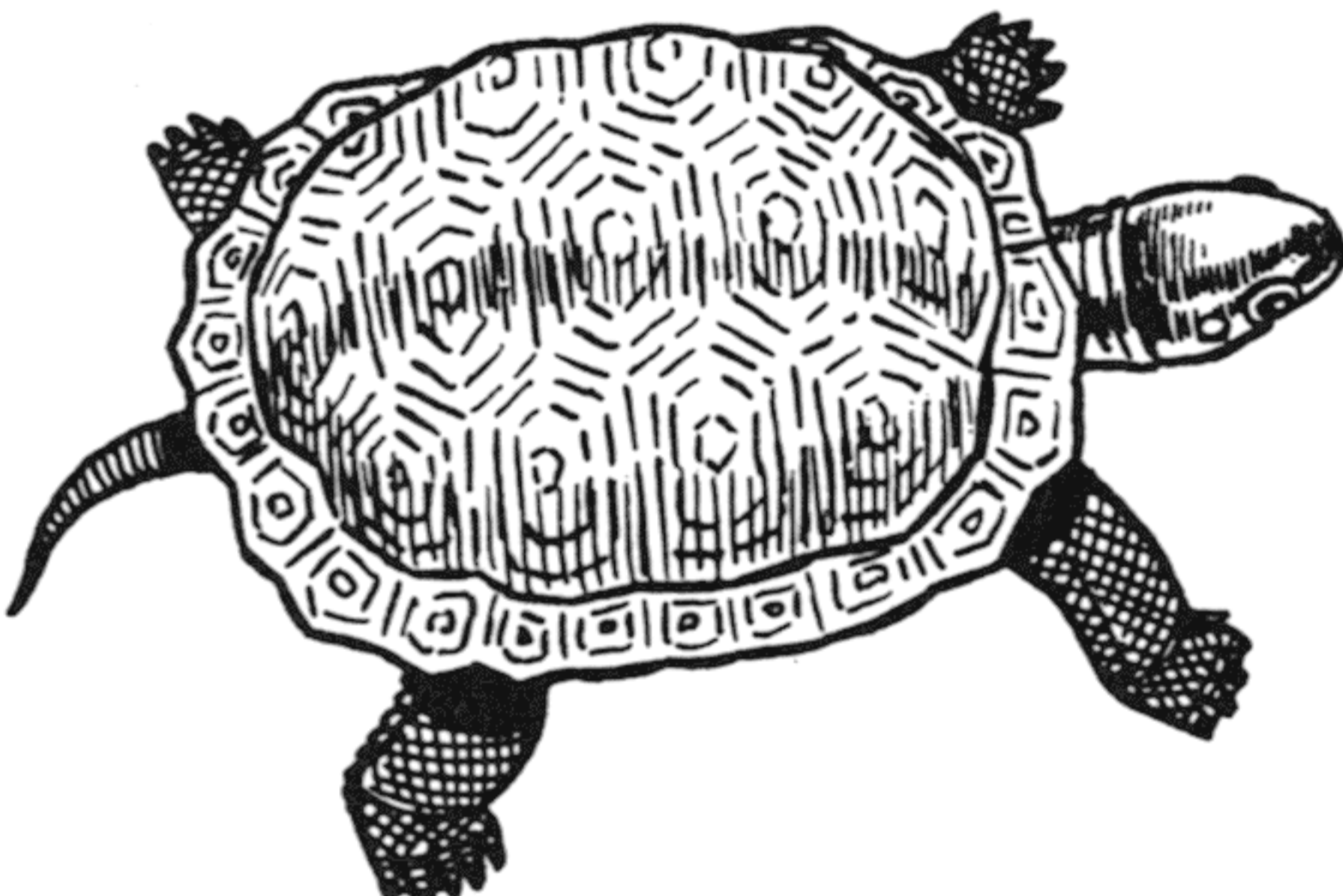
Turtles' legs attach in the same manner as those of lizards and frogs.
Conceive of the turtle as a lizard with a round head and a shell (carapace)

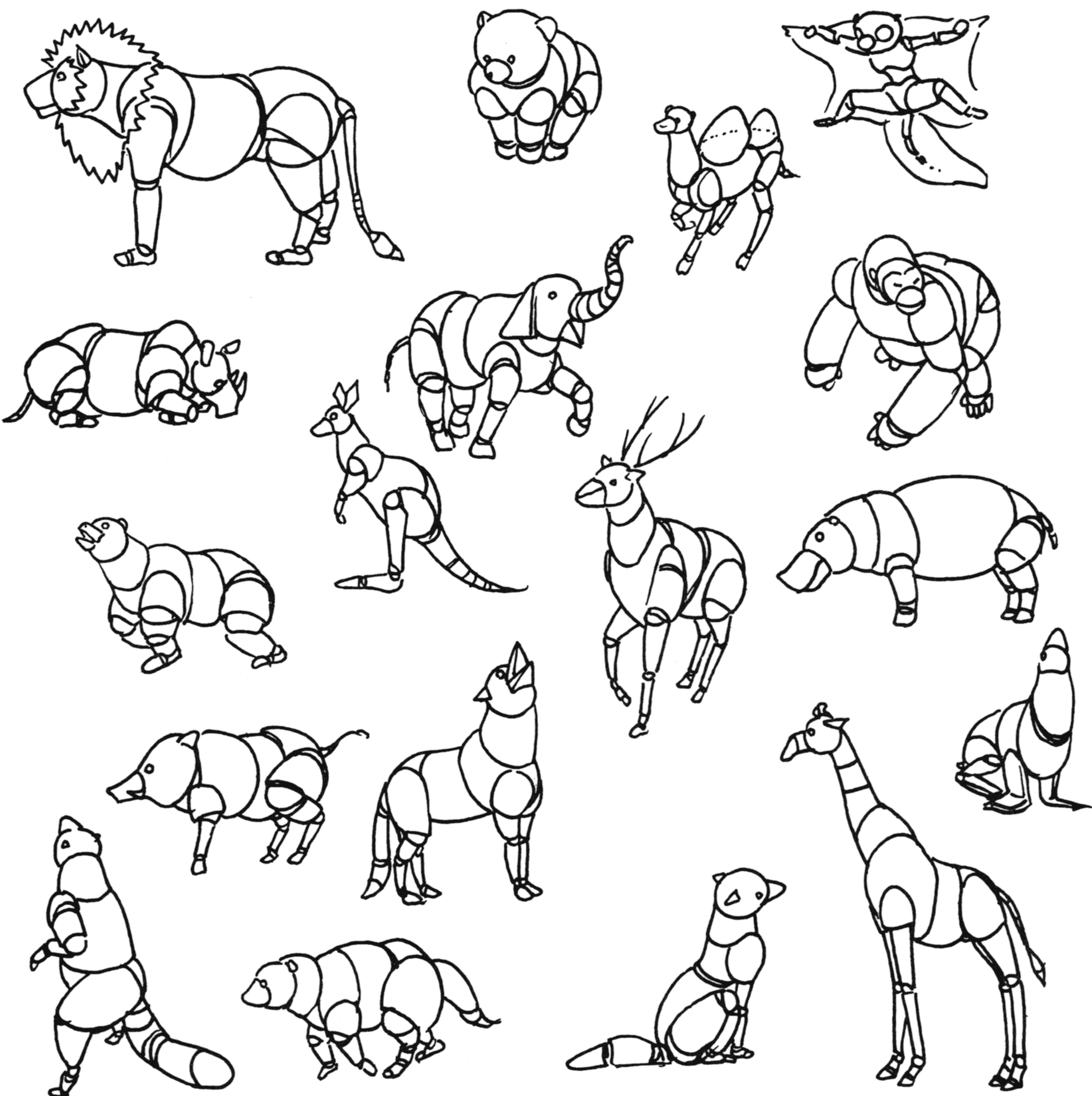
Elbow
Shoulder

Turtle tucked into its shell
(worm's eye view)

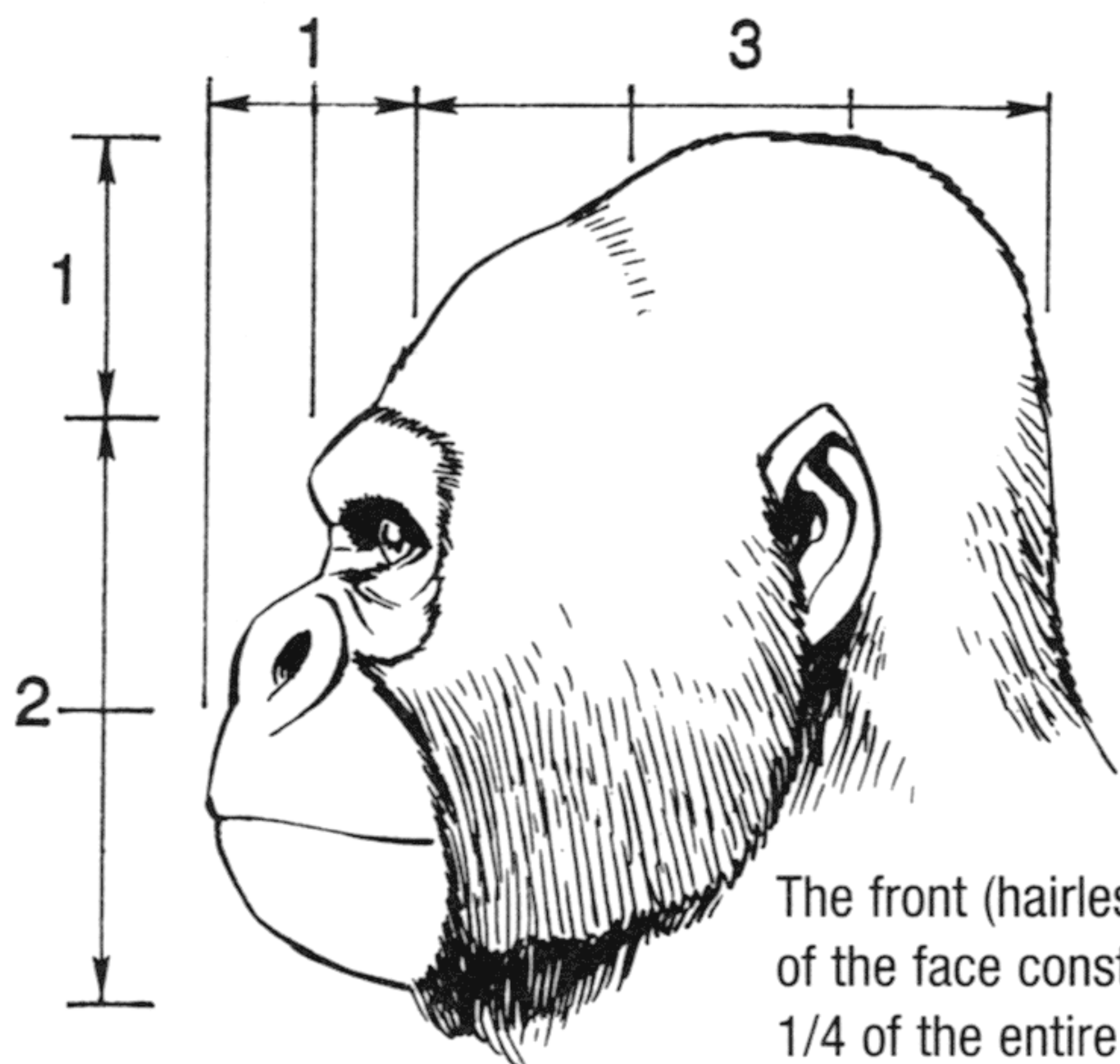
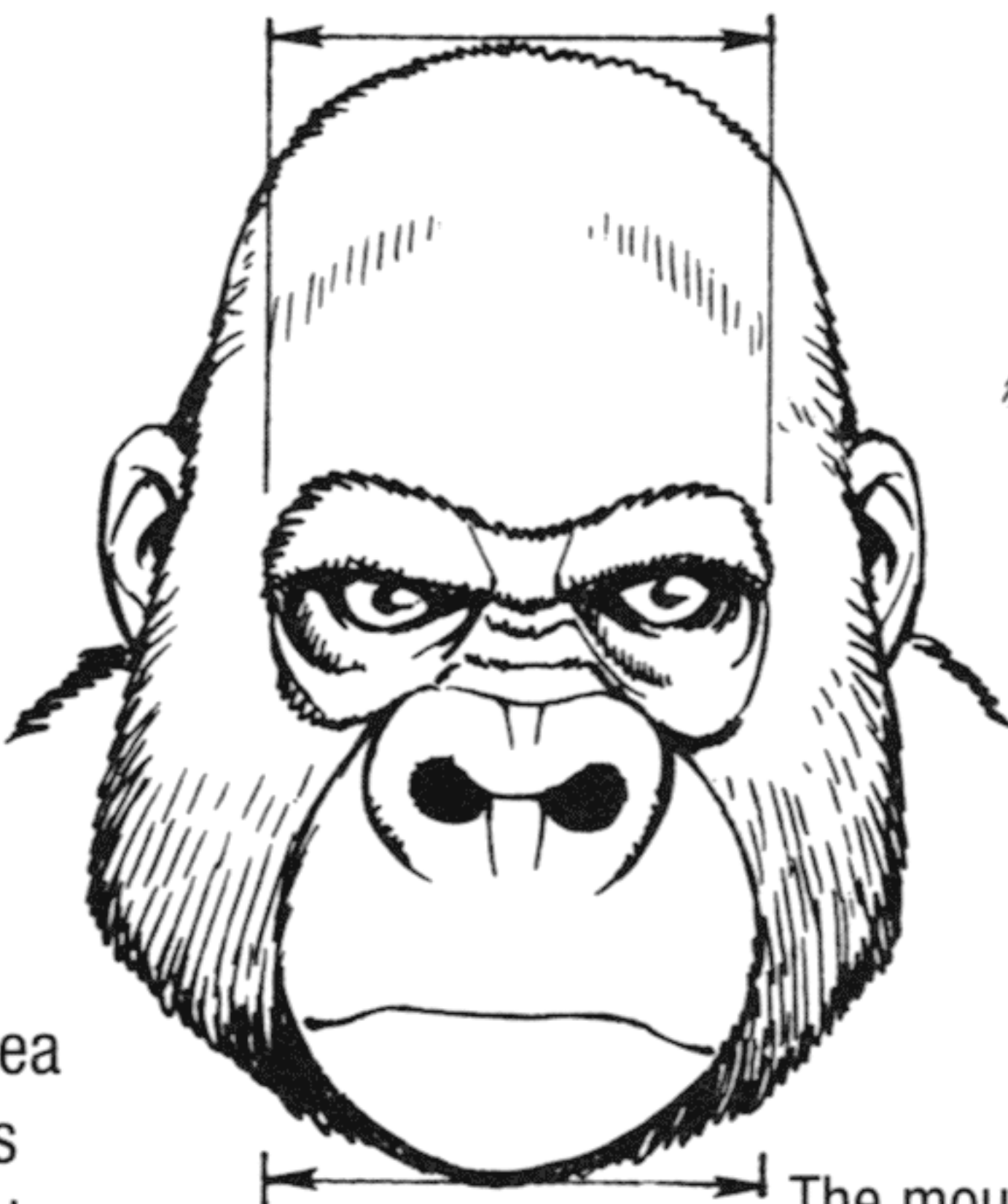
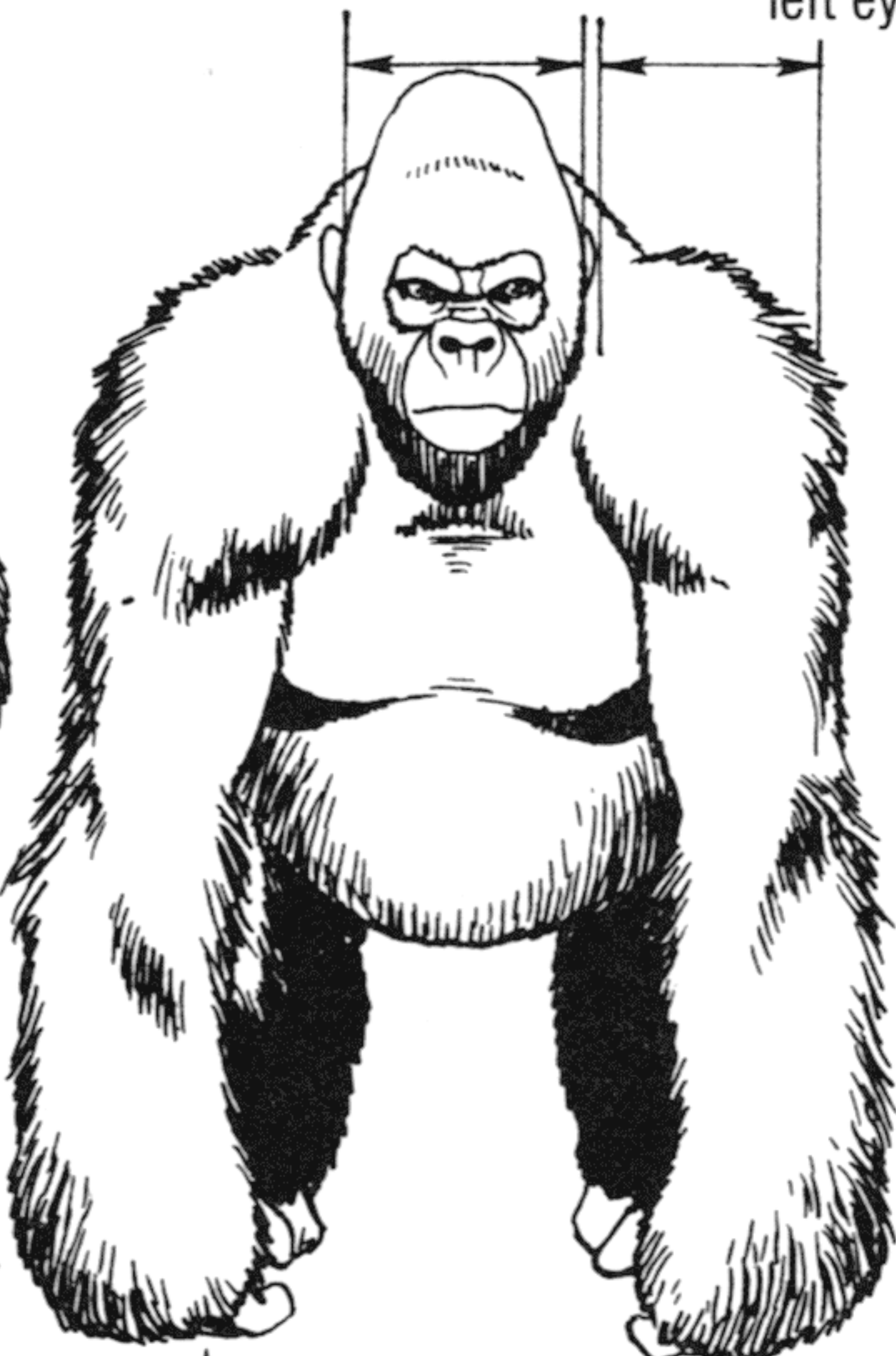
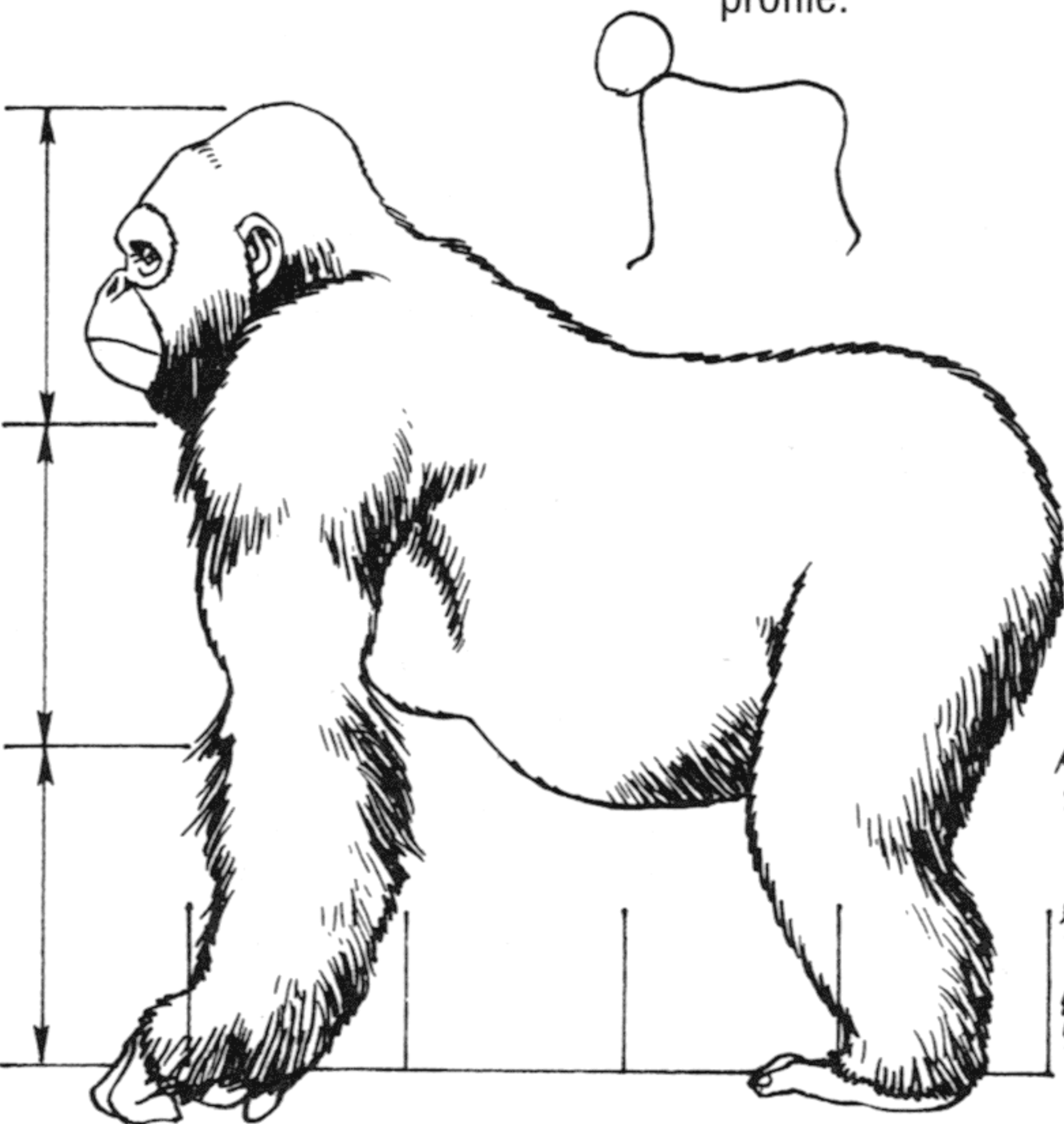
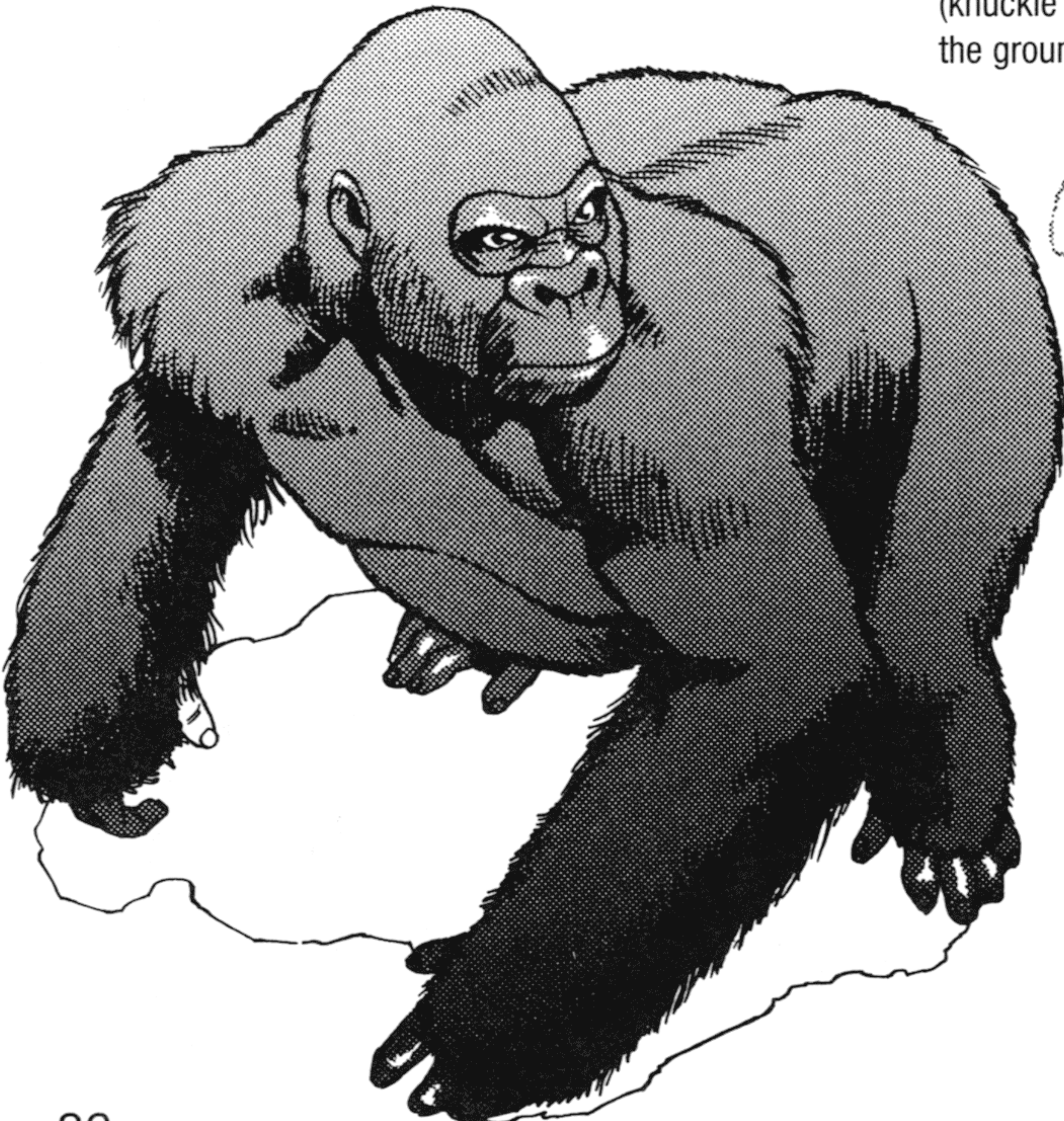
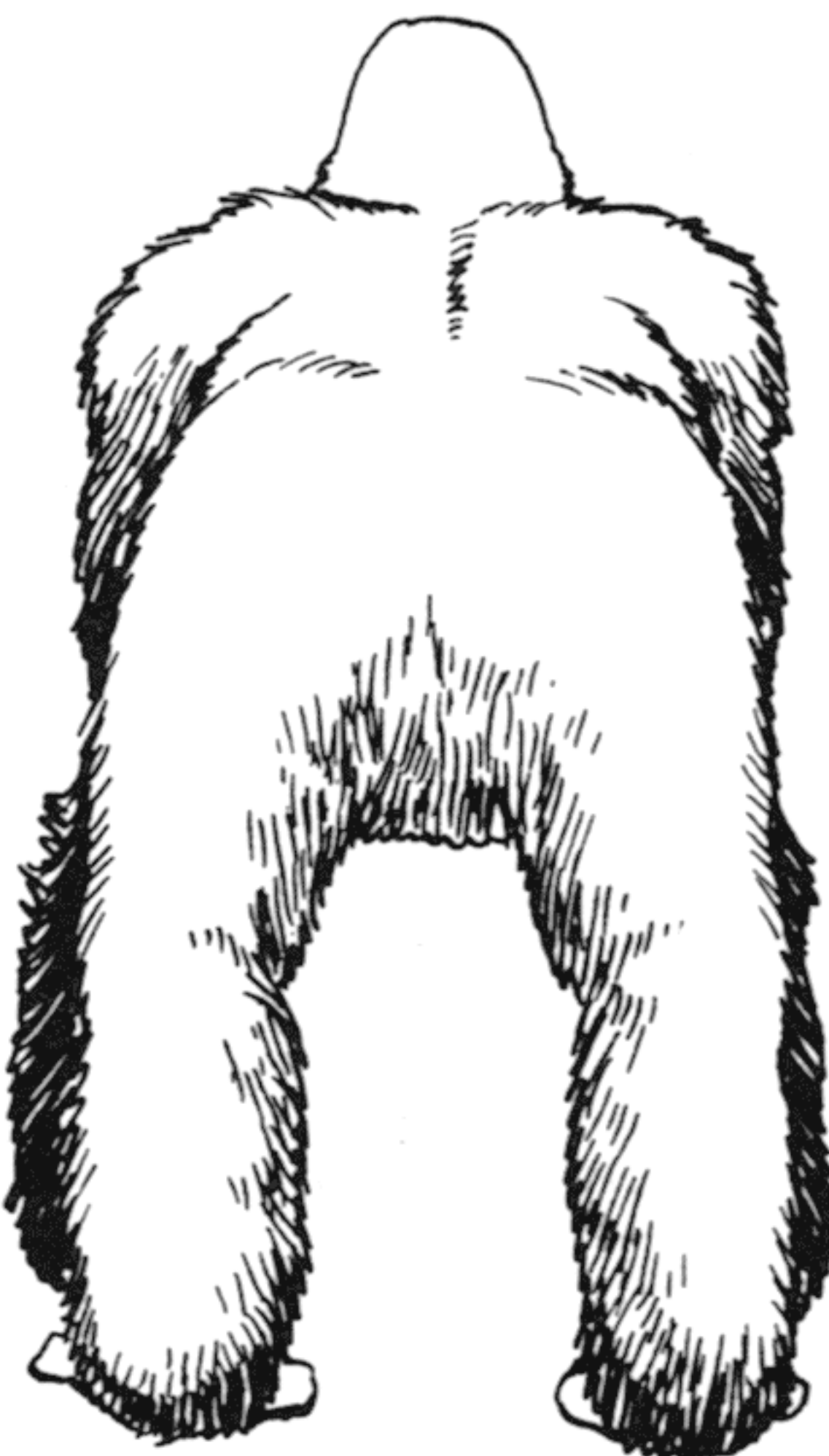
Turtle seen from overhead
(bird's eye view)

The neck stretches
about one-head
length out of the shell.

Draw a lizard.

Add a carapace to
its back.

For the under drawing, sketch the
turtle on the paper's underside.
Next, trace the under drawing using
a light table, carefully filling in the
details.

Correct proportioning:
The carapace is four heads in length.

Chapter 3

Wild Animals

Gorillas

Make the area above the gorilla's brow, the forehead, expansive. Give the gorilla strong, bulging shoulders. The neck is incorporated within the trunk and is typically not very visible.

1
3
1
2

The front (hairless) area of the face constitutes 1/4 of the entire face in profile.

The mouth is the same width as the distance from the tip of the left eye to the tip of the right.

The top of the hand (knuckle side) touches the ground.

Orangutans

Give the male orangutan a largish head and cheek pads about as wide as the distance the eyes are space apart.

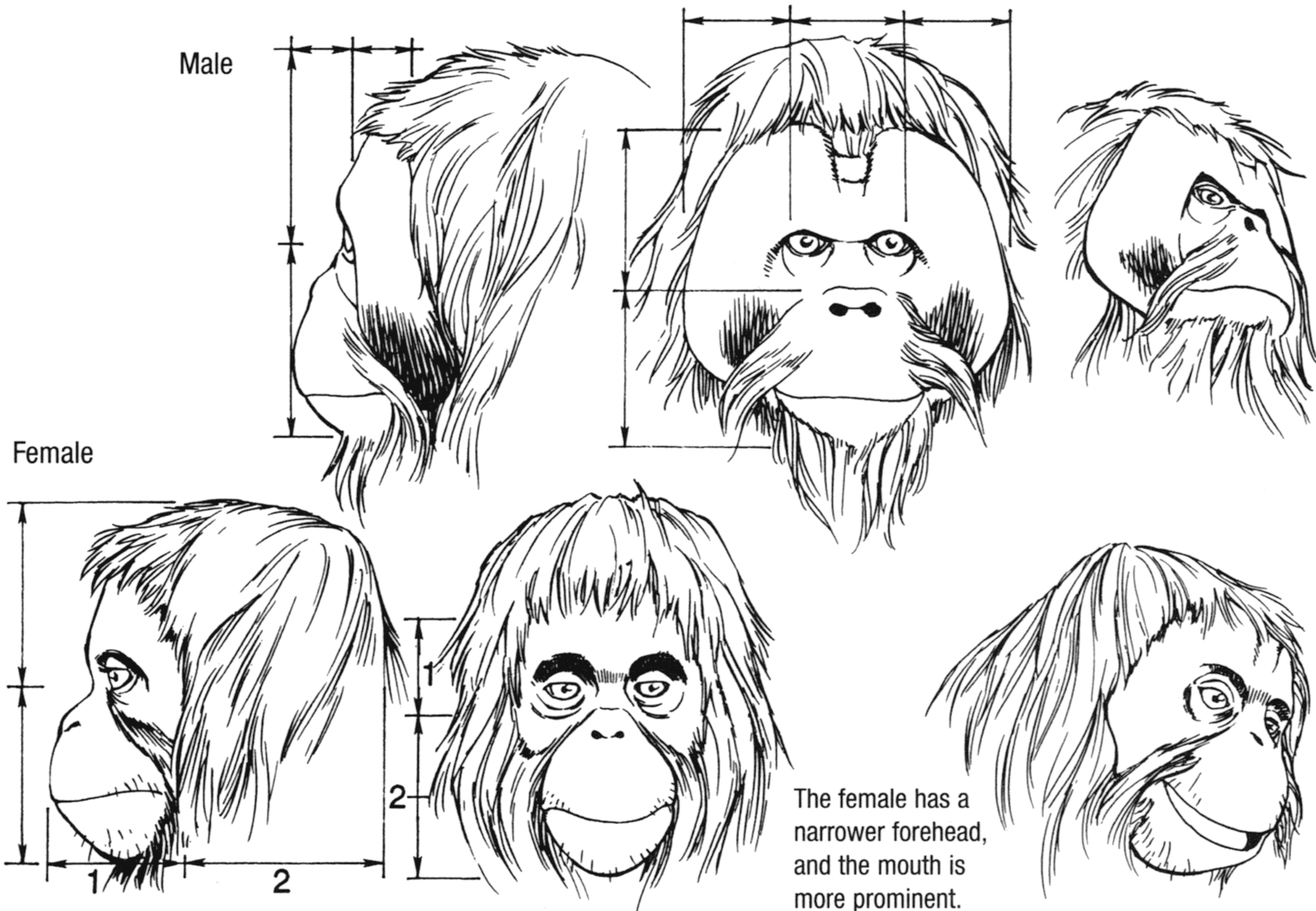
Male

Female

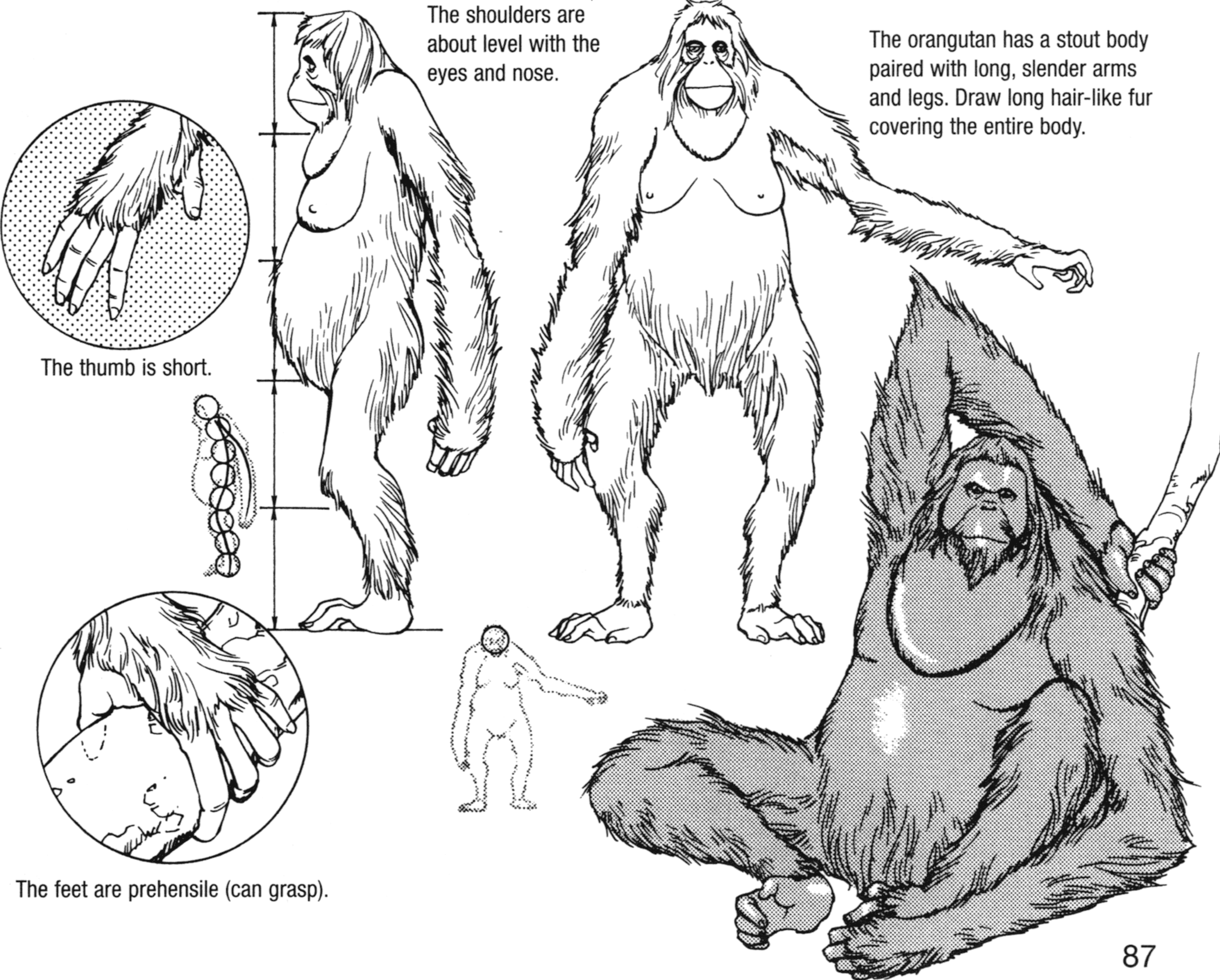
1

2

1

2

The female has a narrower forehead, and the mouth is more prominent.

The shoulders are about level with the eyes and nose.

The orangutan has a stout body paired with long, slender arms and legs. Draw long hair-like fur covering the entire body.

The thumb is short.

The feet are prehensile (can grasp).

Chimpanzees

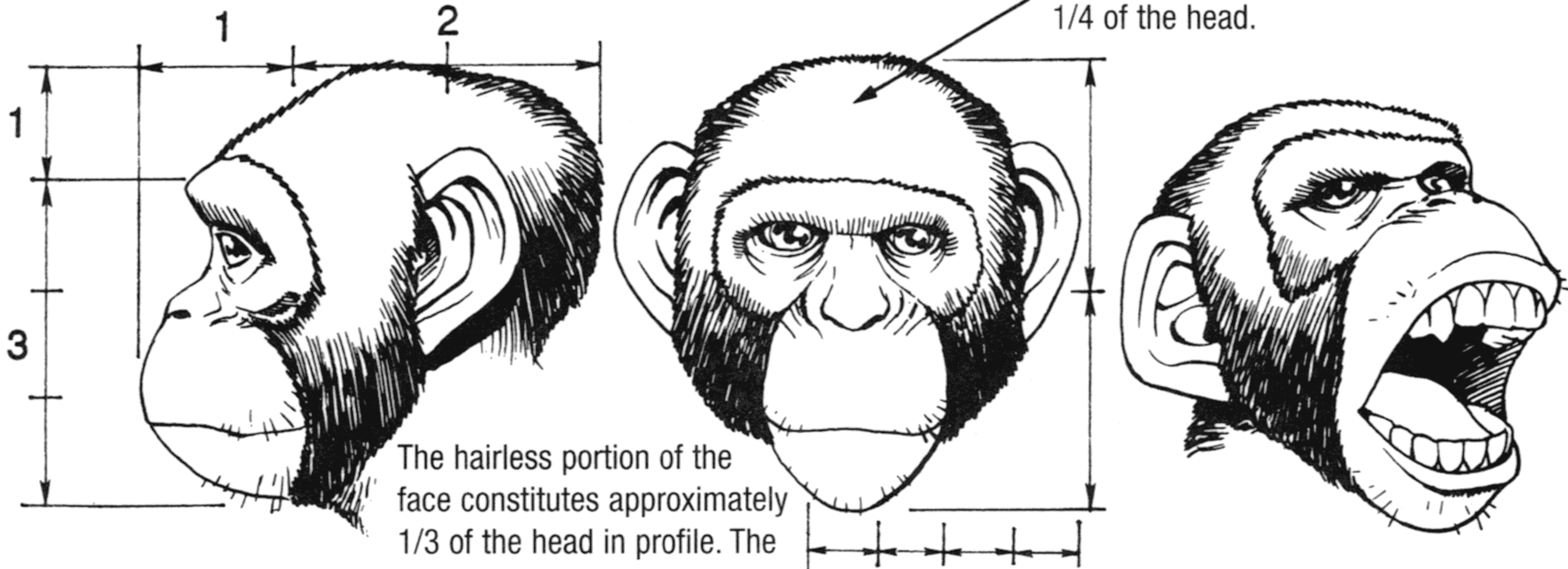
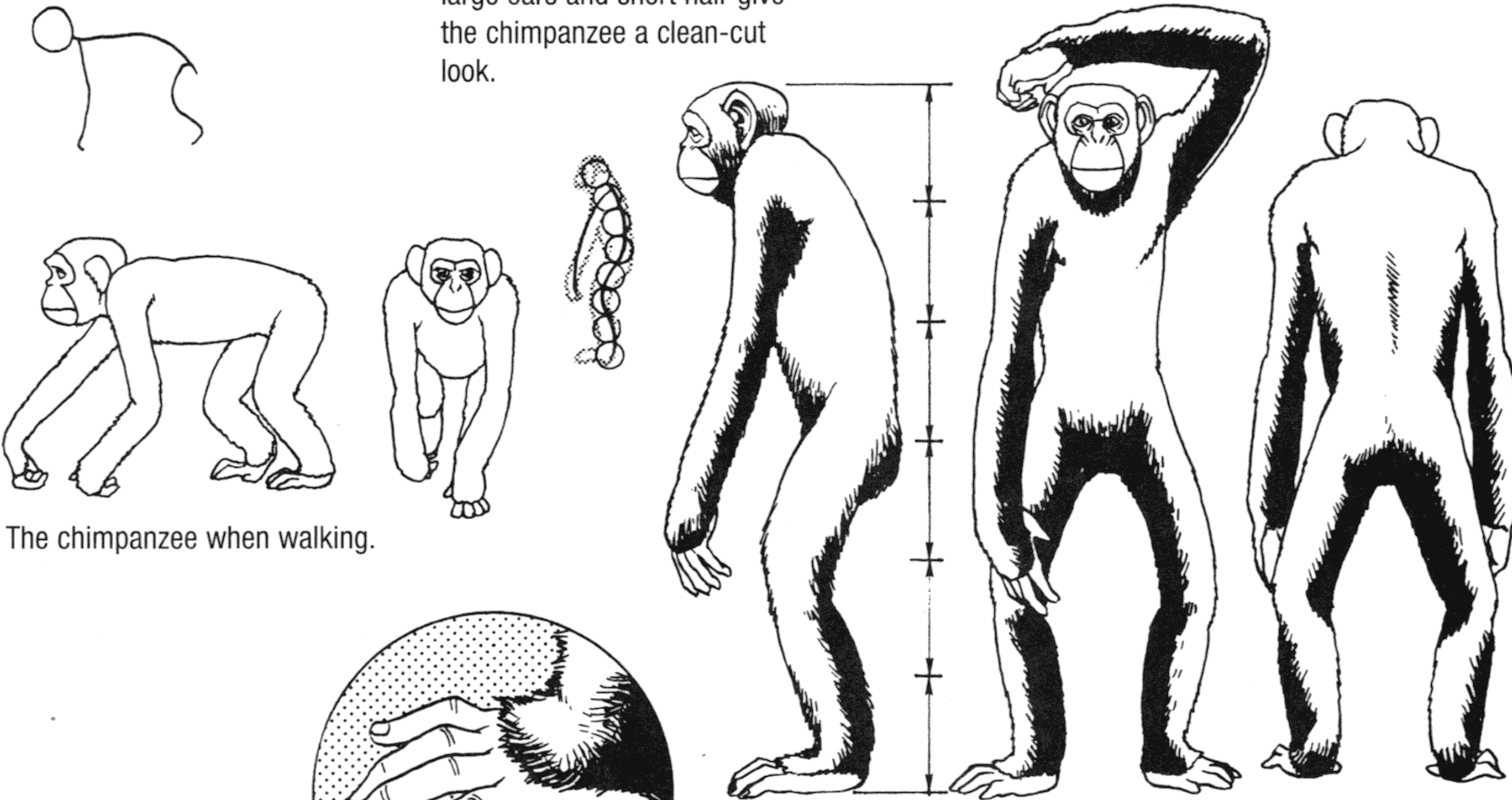
Chimpanzees' heads seem to rest immediately upon their shoulders. Draw them with slender hands and feet, long fingers and toes, and big ears.

The ears are approximately half the head in height.

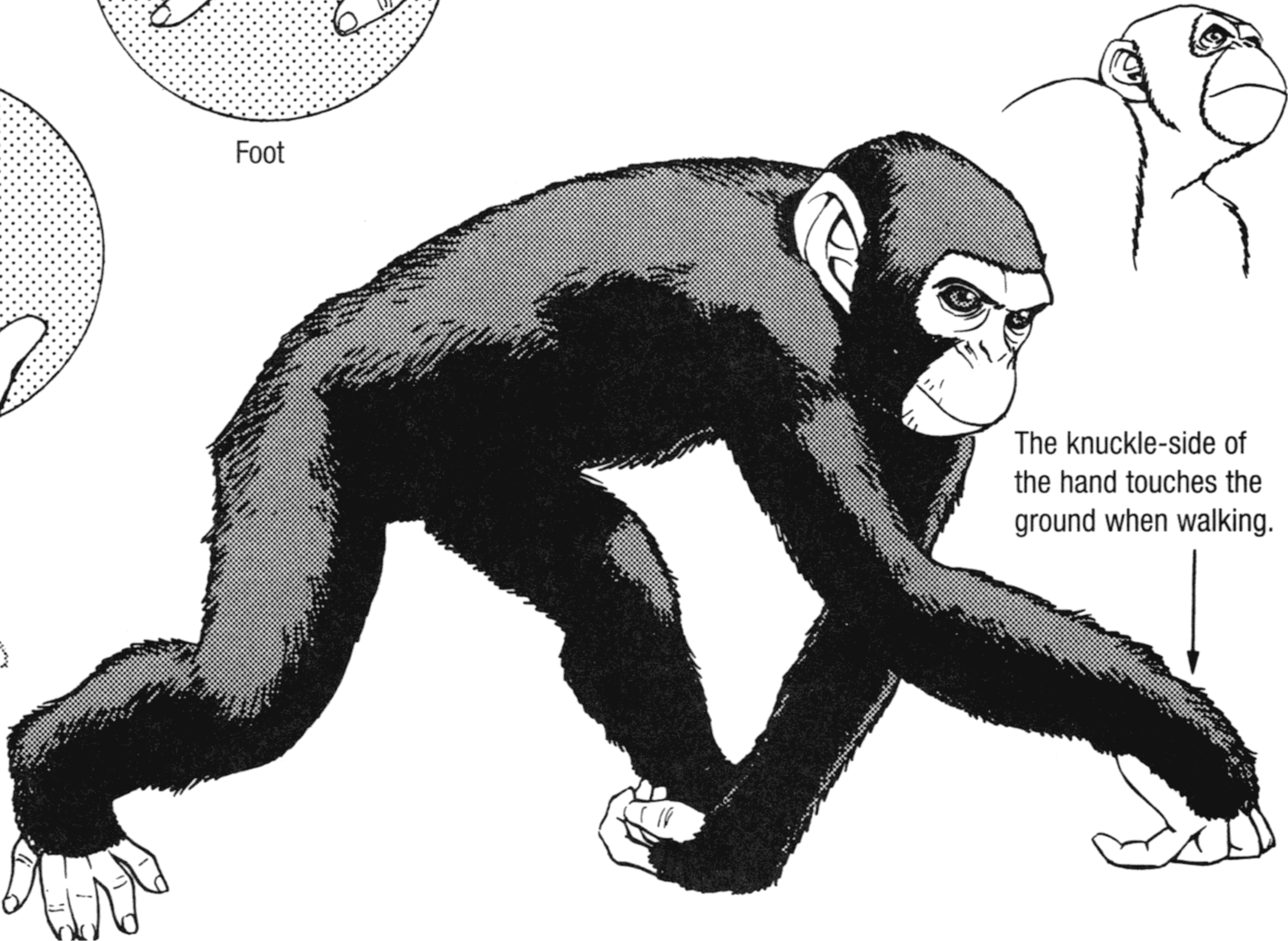
The hairy forehead occupies about 1/4 of the head.

1 2

1

3

The hairless portion of the face constitutes approximately 1/3 of the head in profile. The large ears and short hair give the chimpanzee a clean-cut look.

The chimpanzee when walking.

Foot

Hand

The knuckle-side of the hand touches the ground when walking.

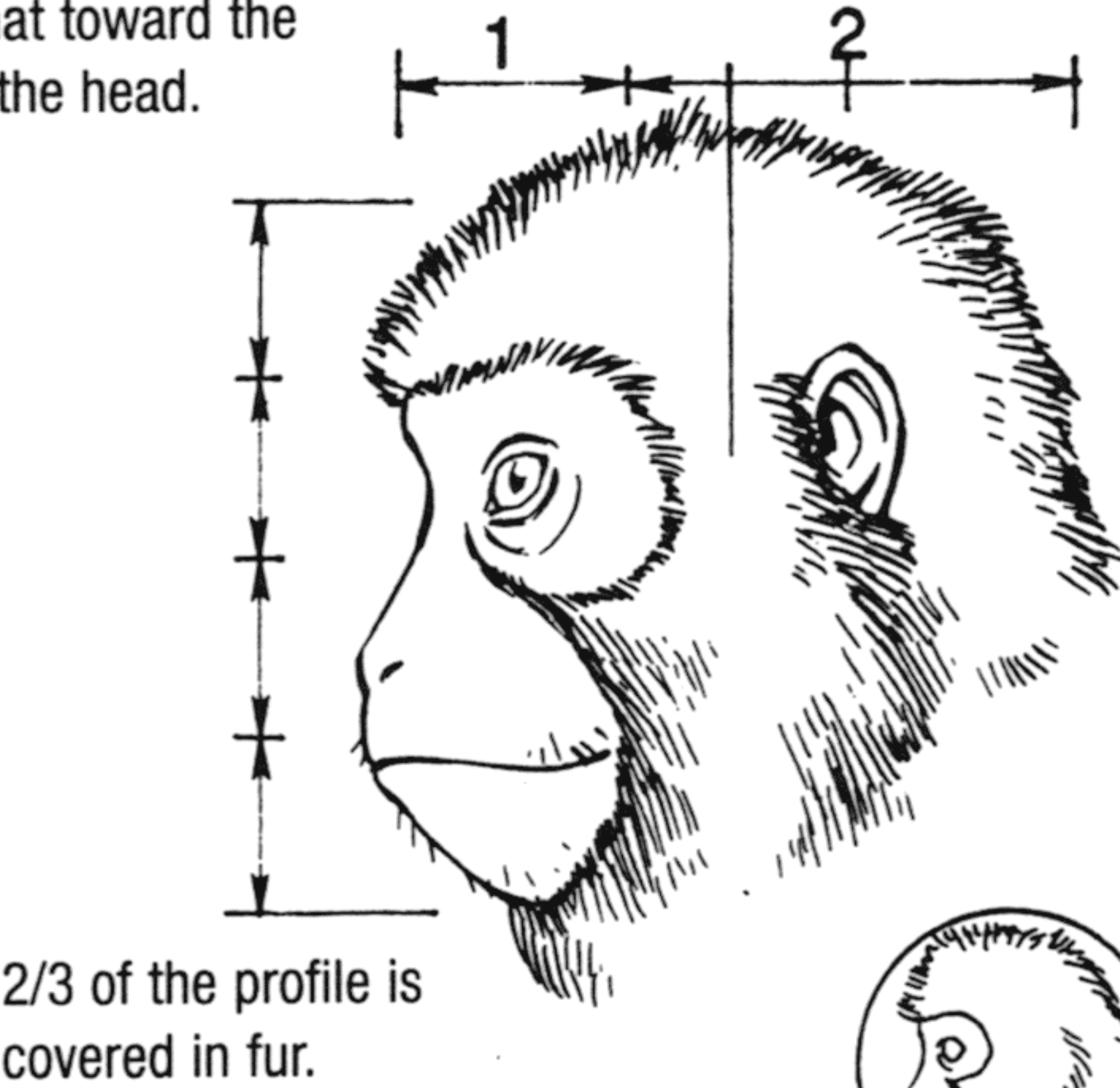
Japanese Macaques

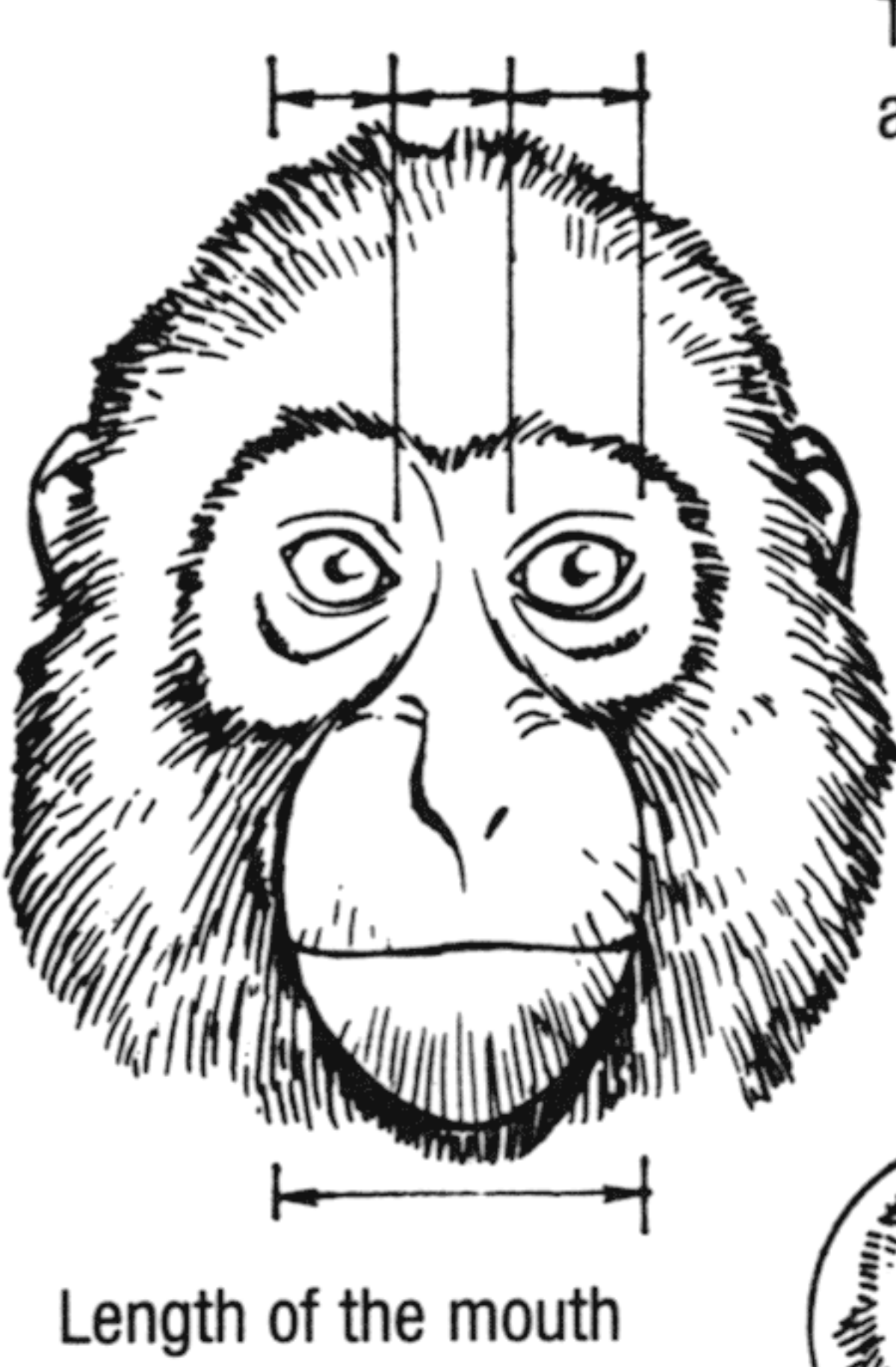
The Japanese macaque typically walks on all fours. Its ears are sometimes obscured from view by fur such as in the winter and other occasions (and should be omitted when drawing).

The ears are situated somewhat toward the back of the head.

1

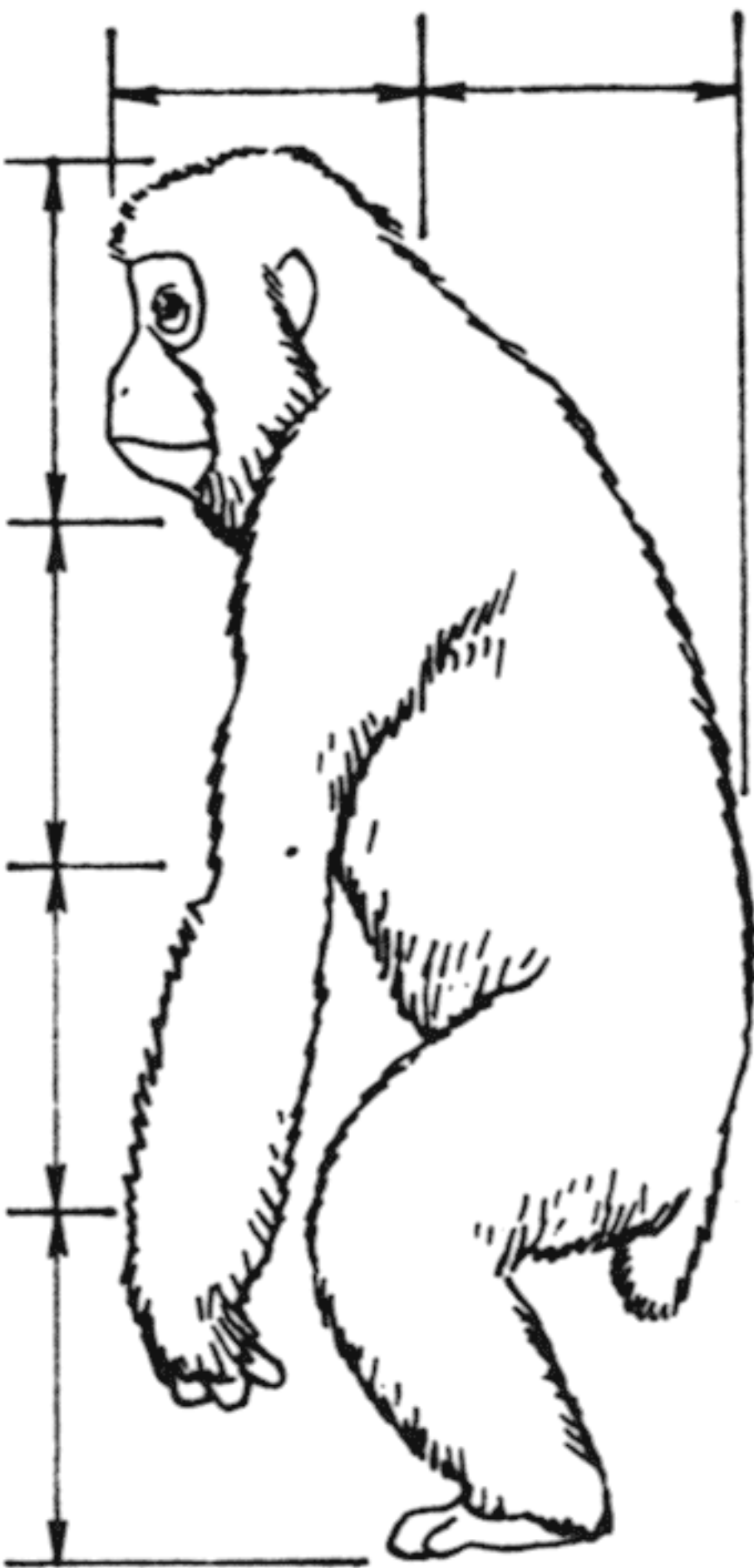
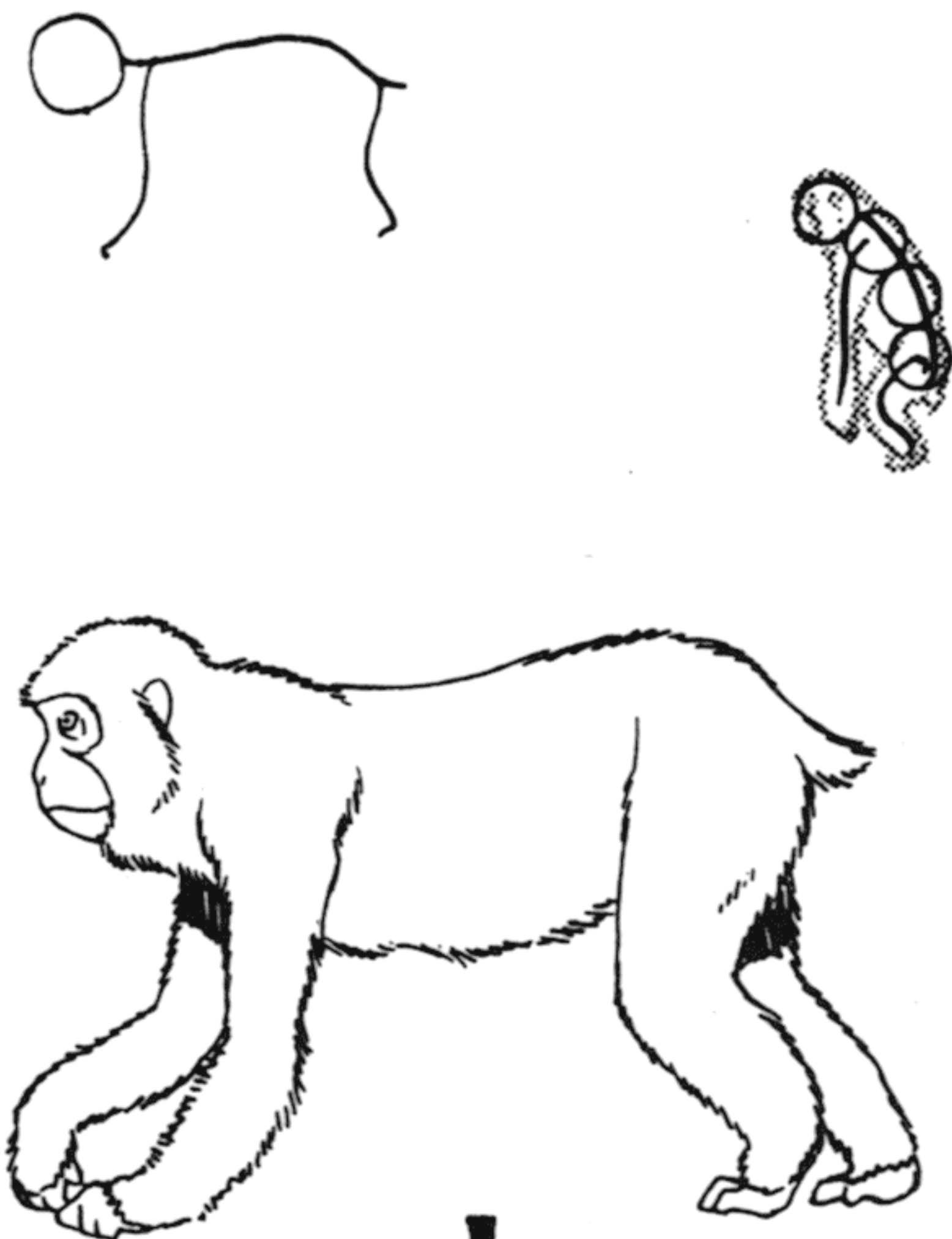
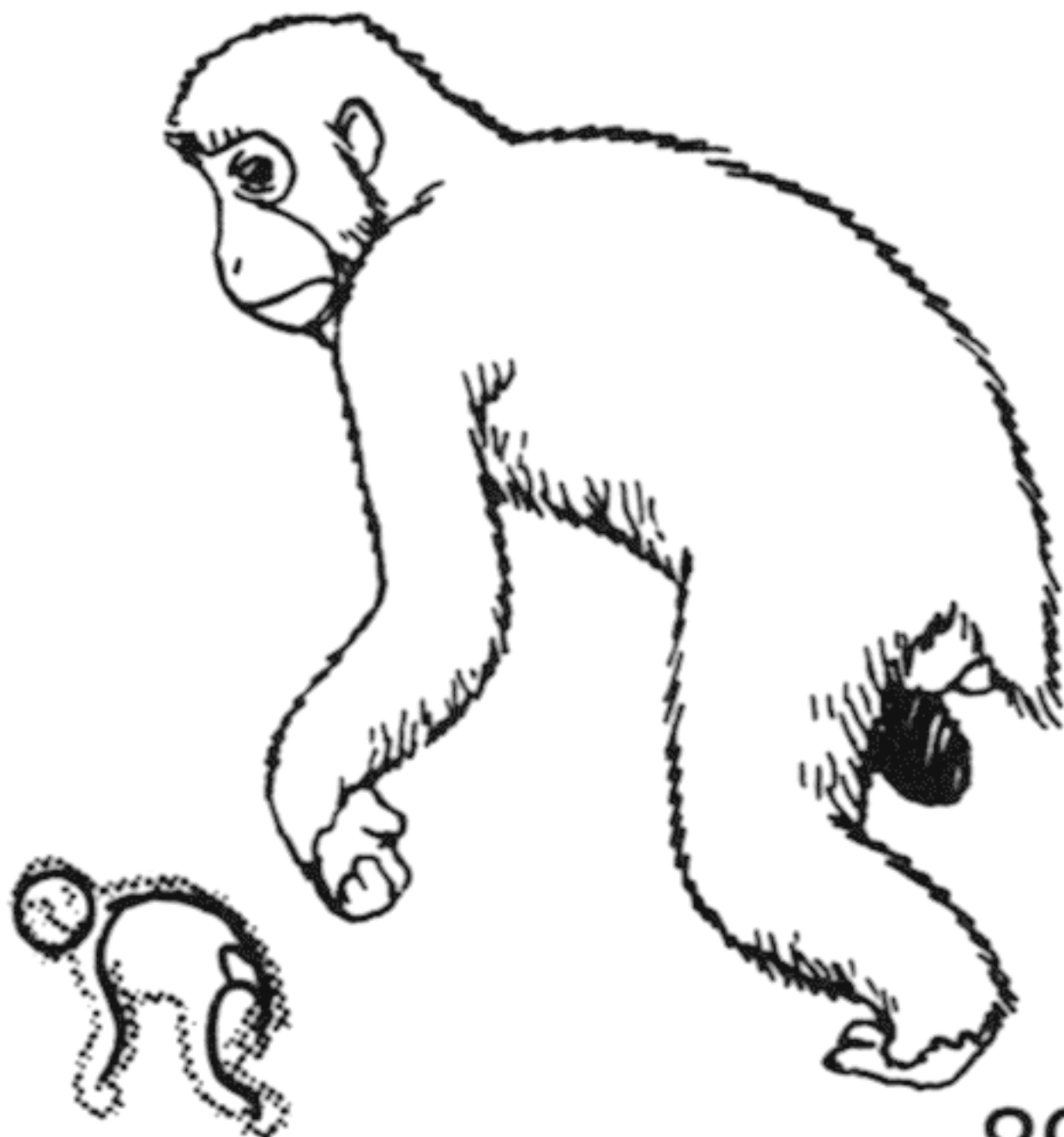
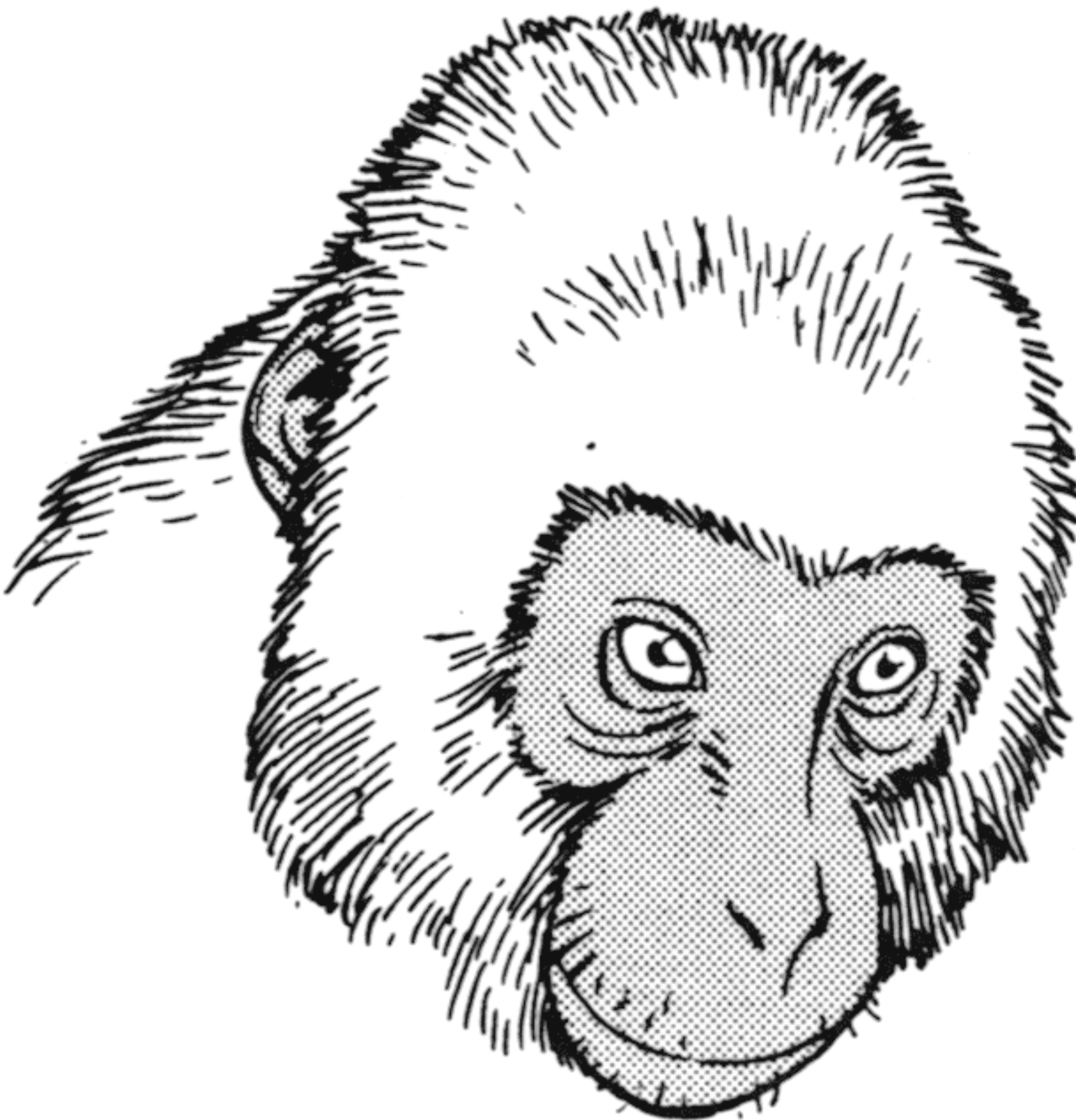
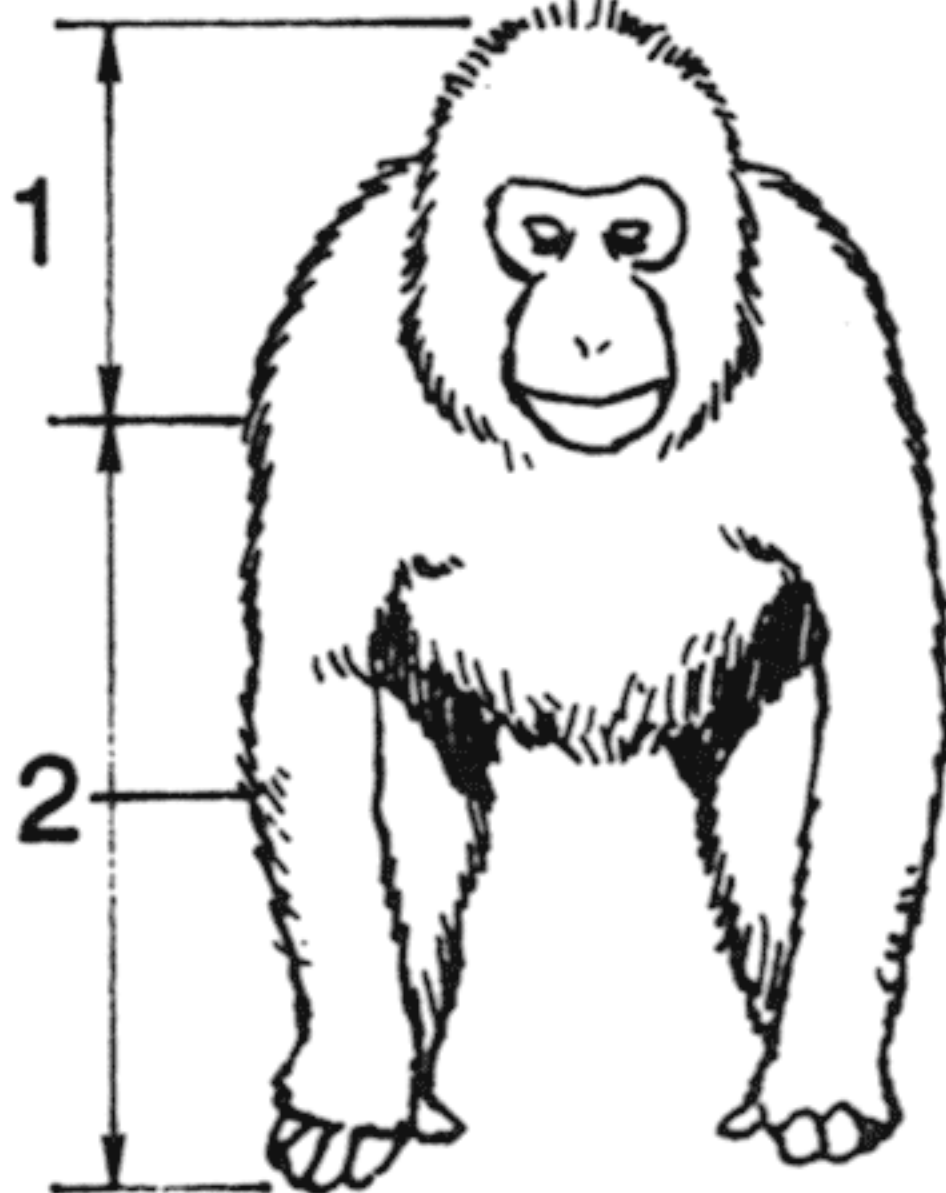
2

The eyes are spaced approximately one eye apart.

2/3 of the profile is covered in fur.

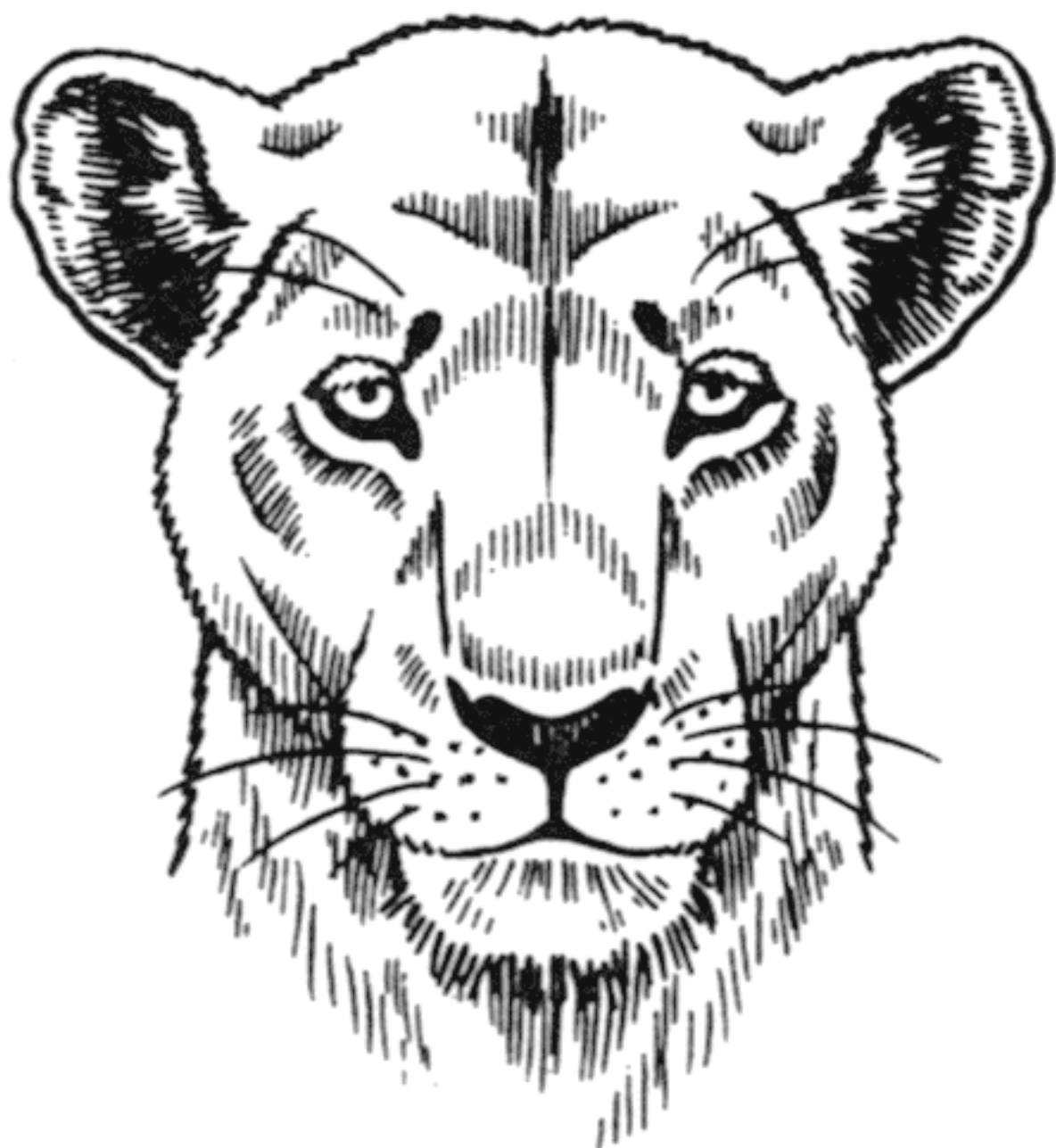
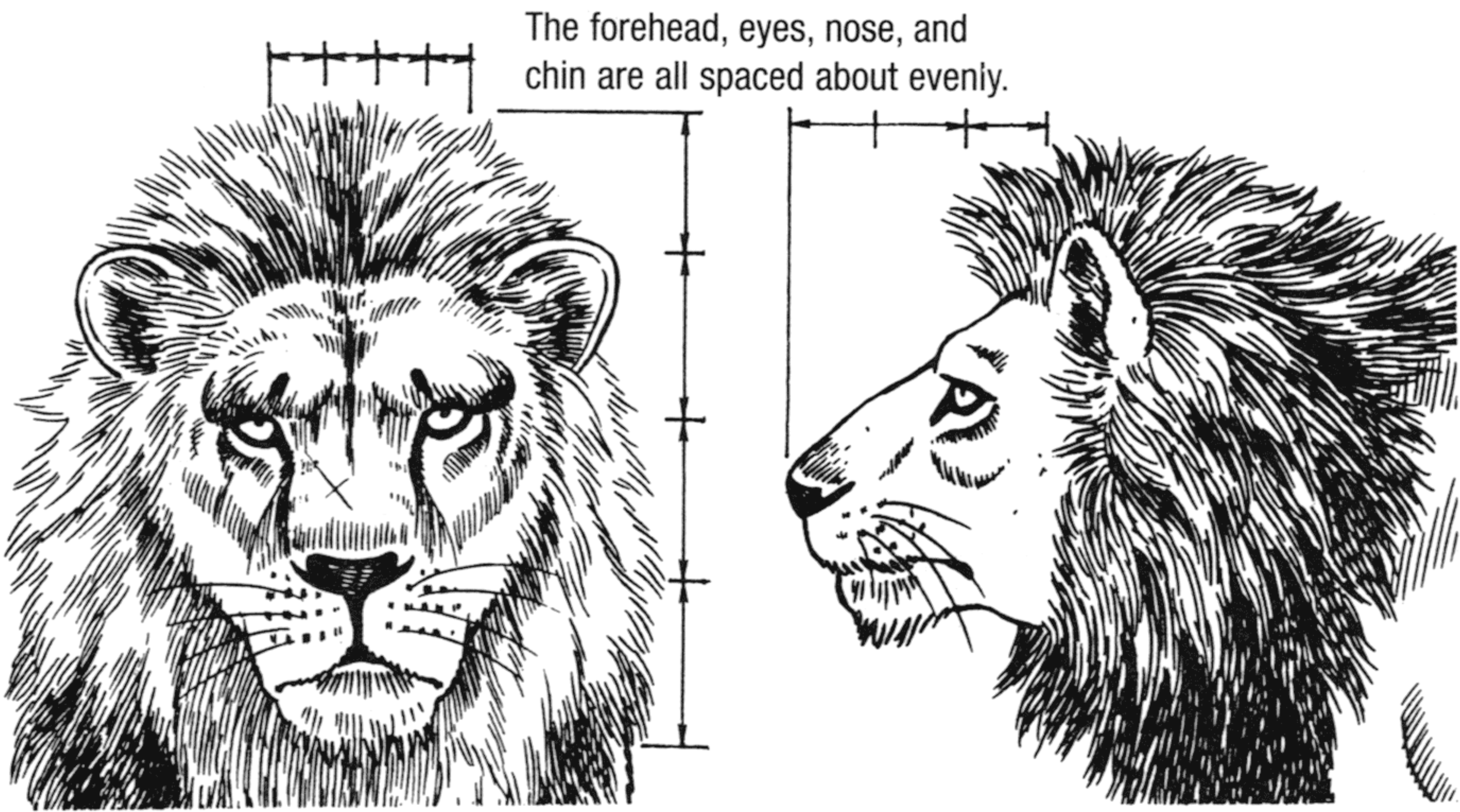
Length of the mouth

Japanese macaque with ears omitted

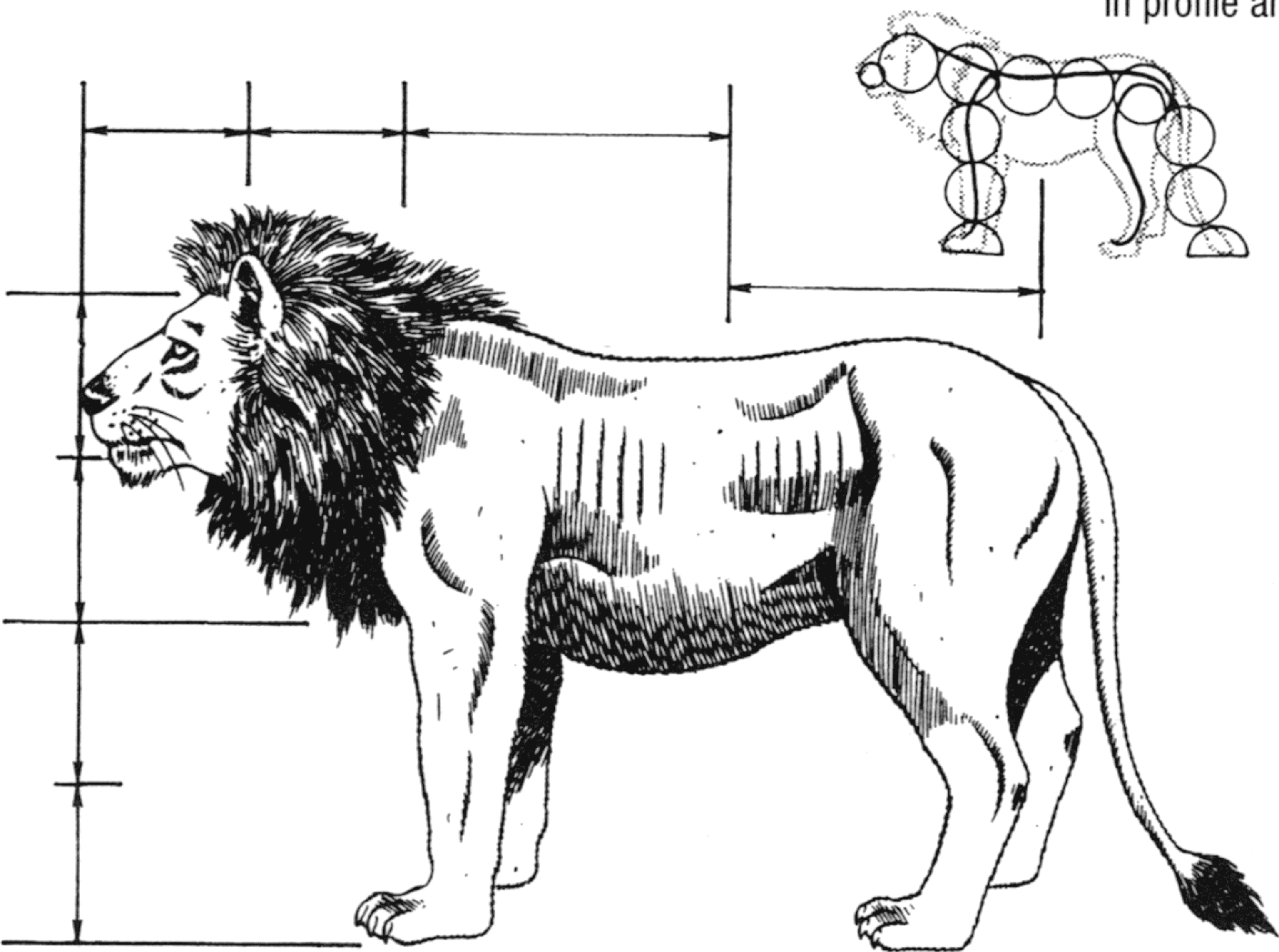
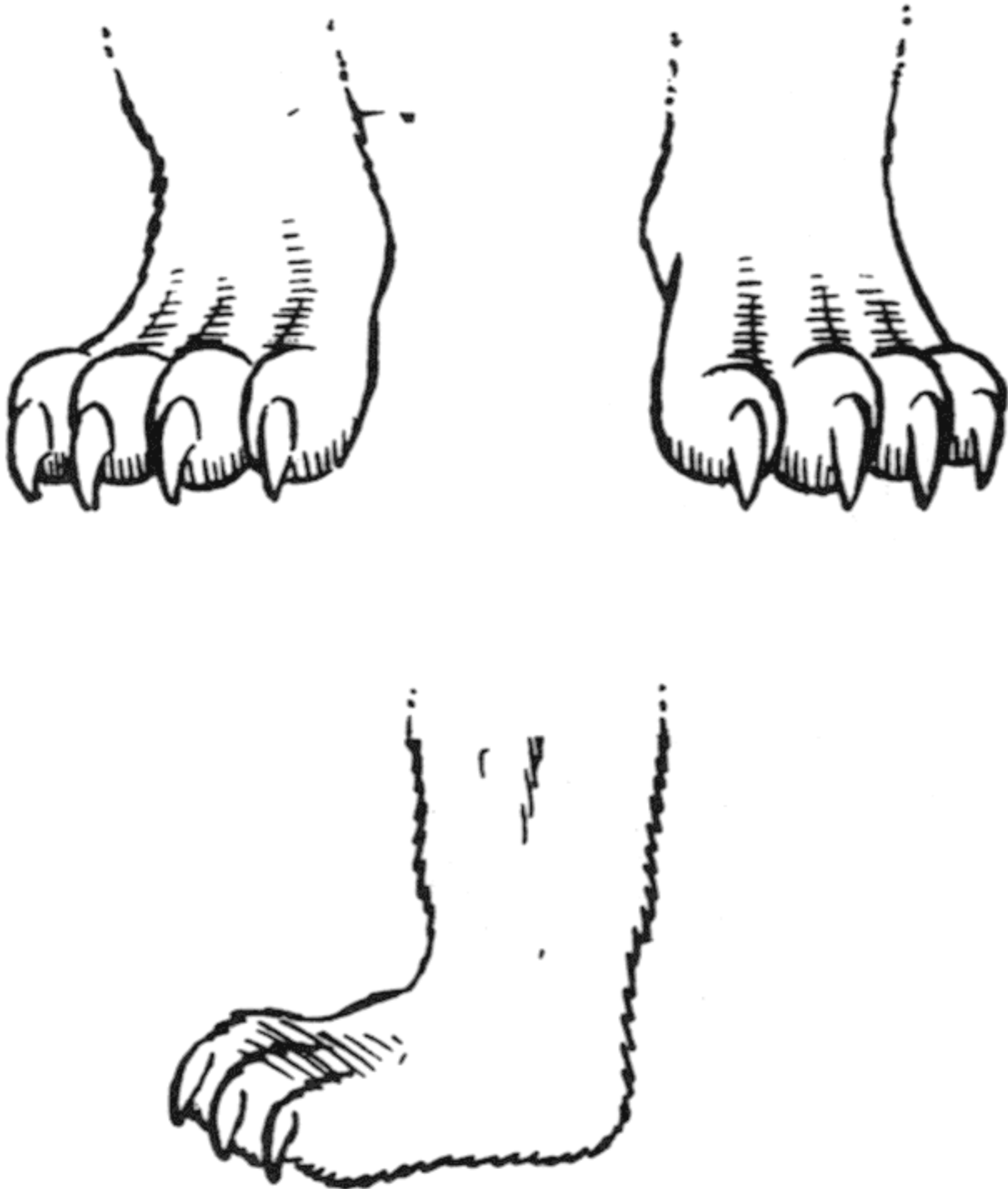
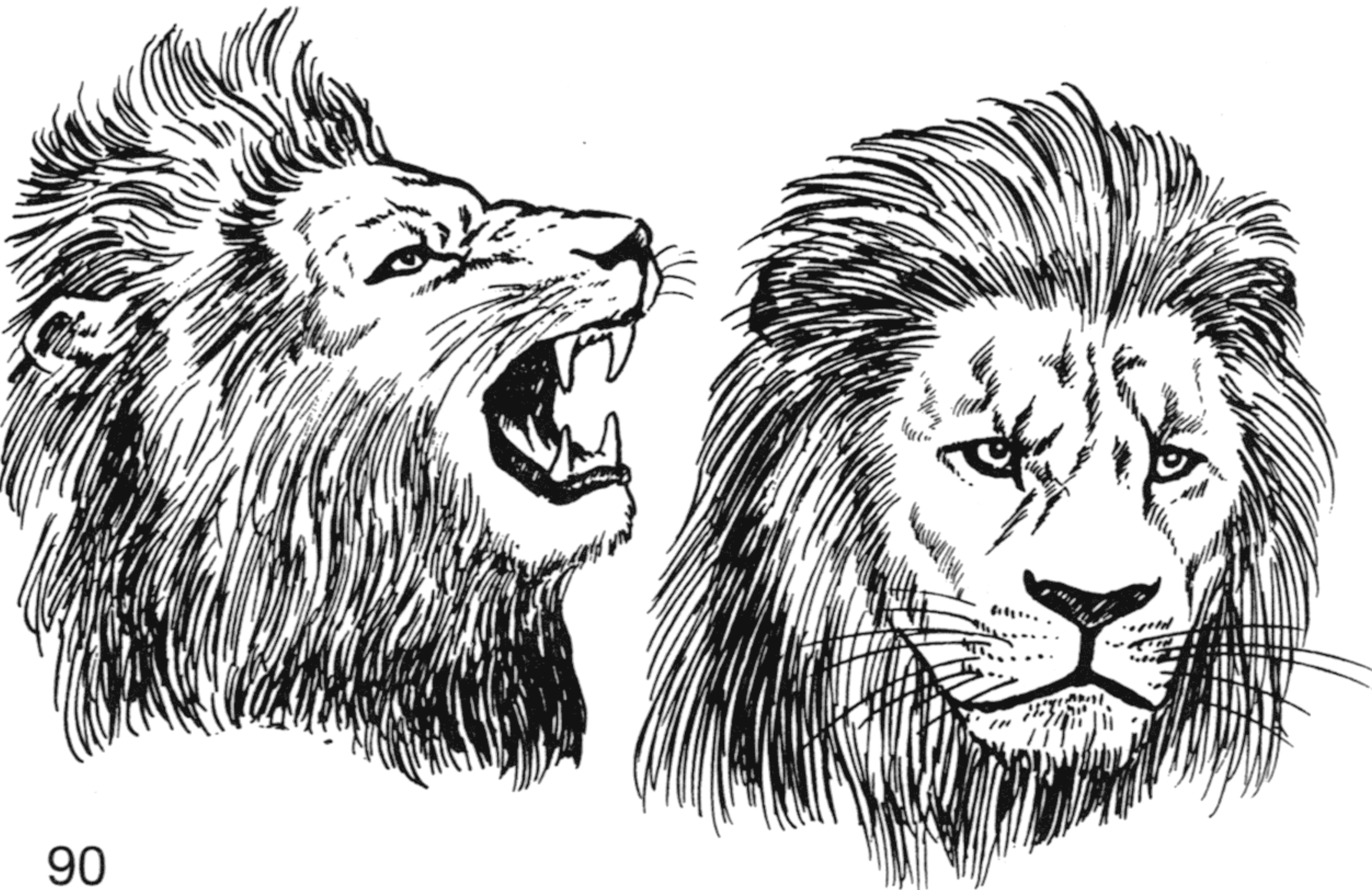
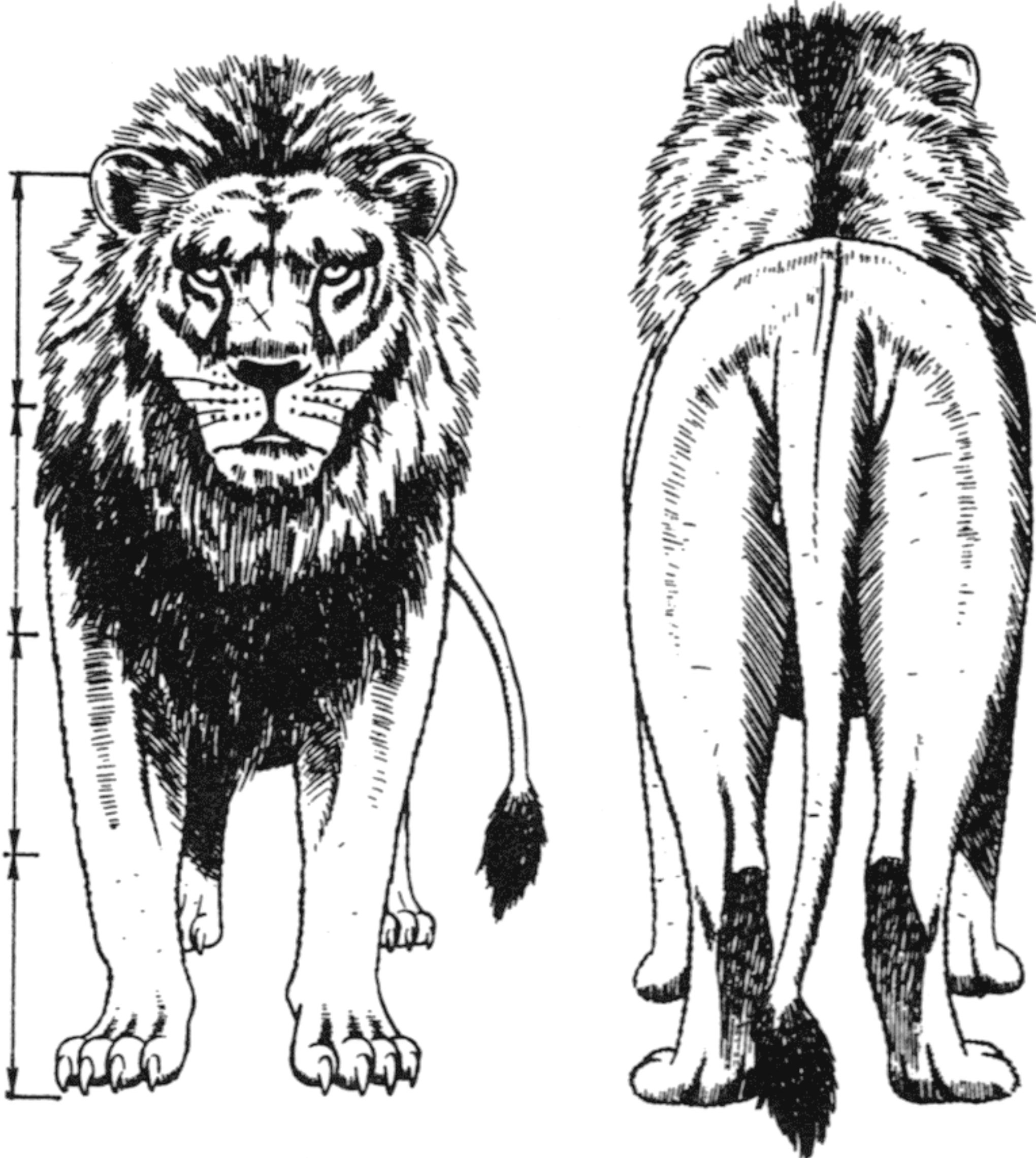
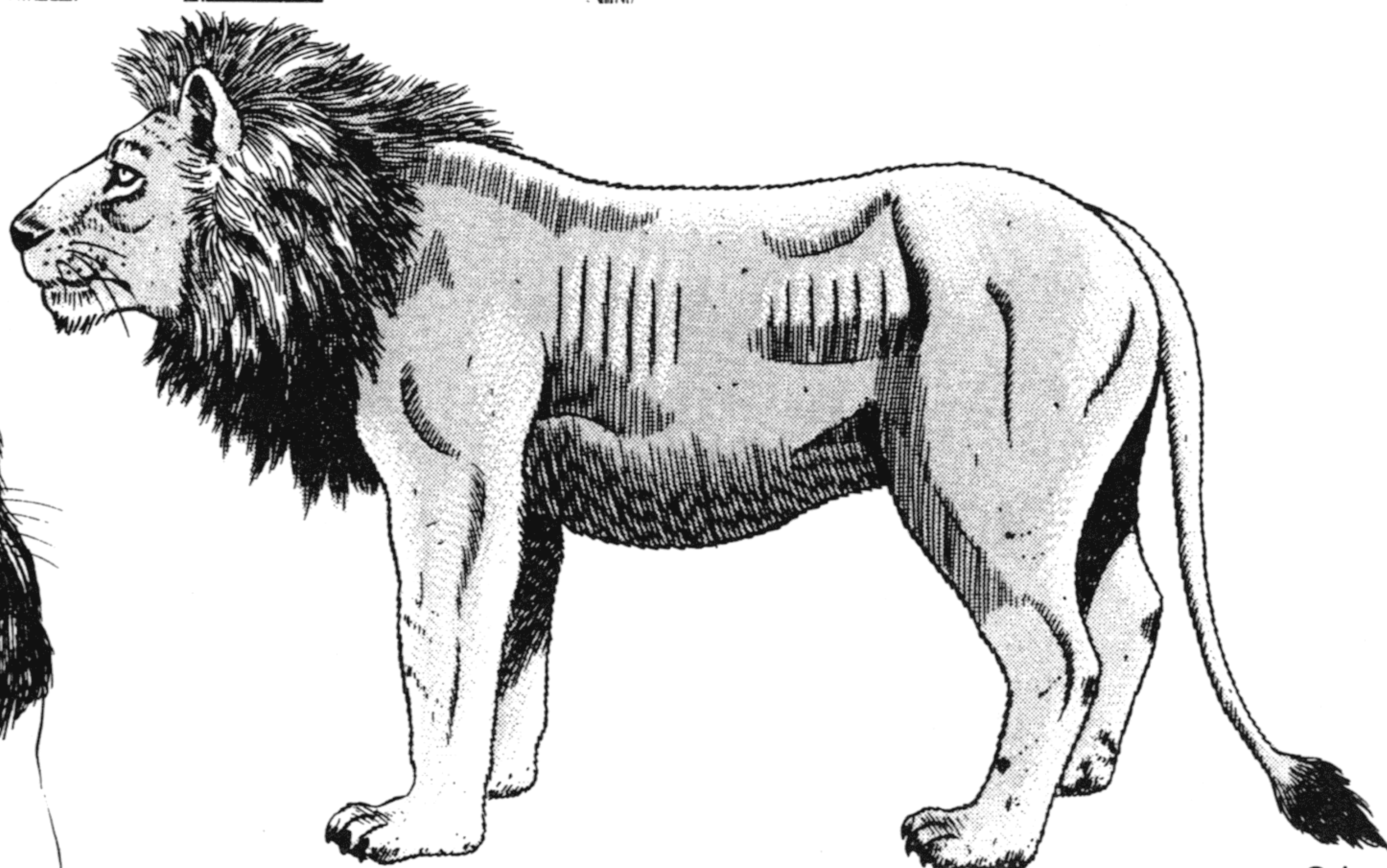
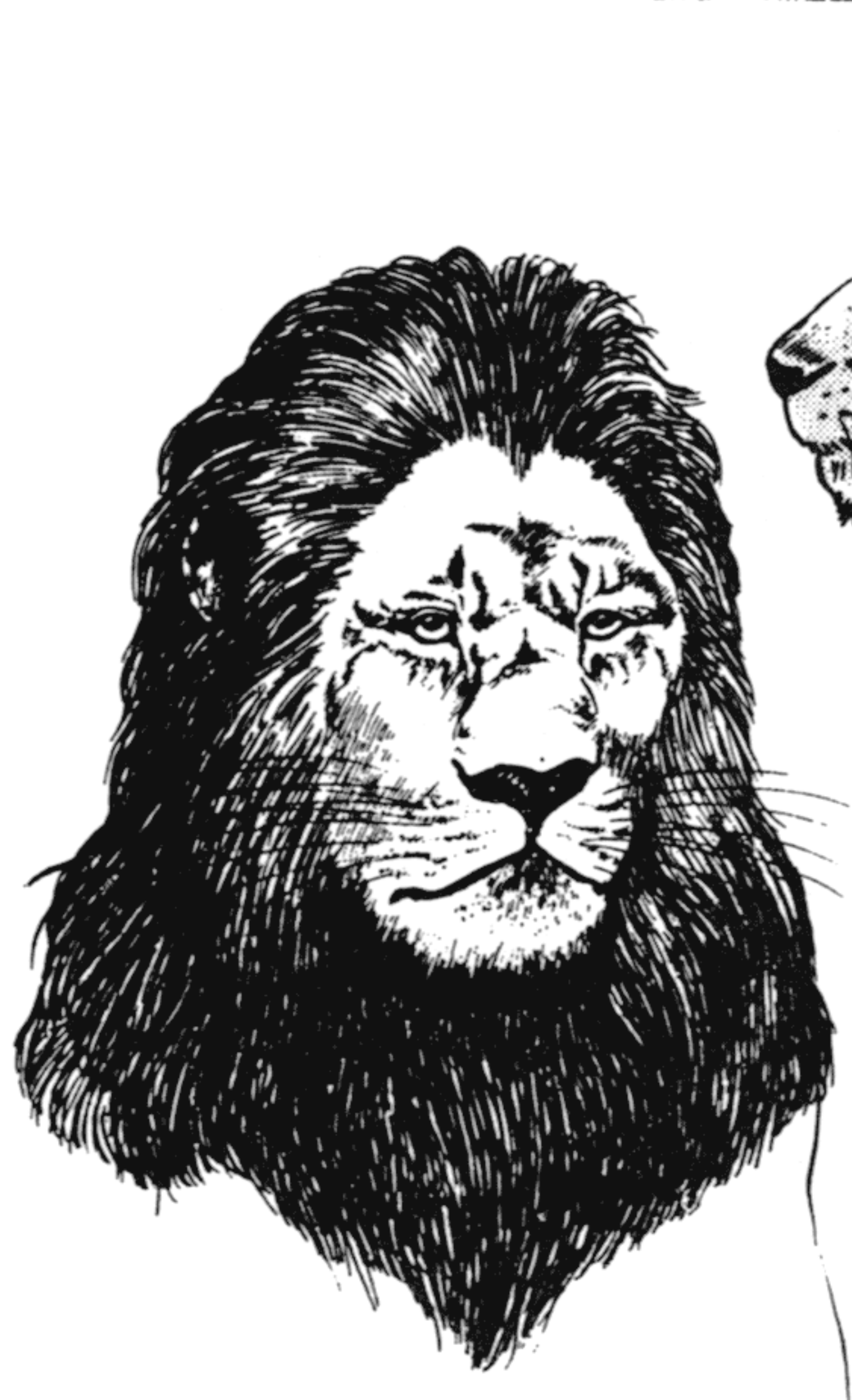
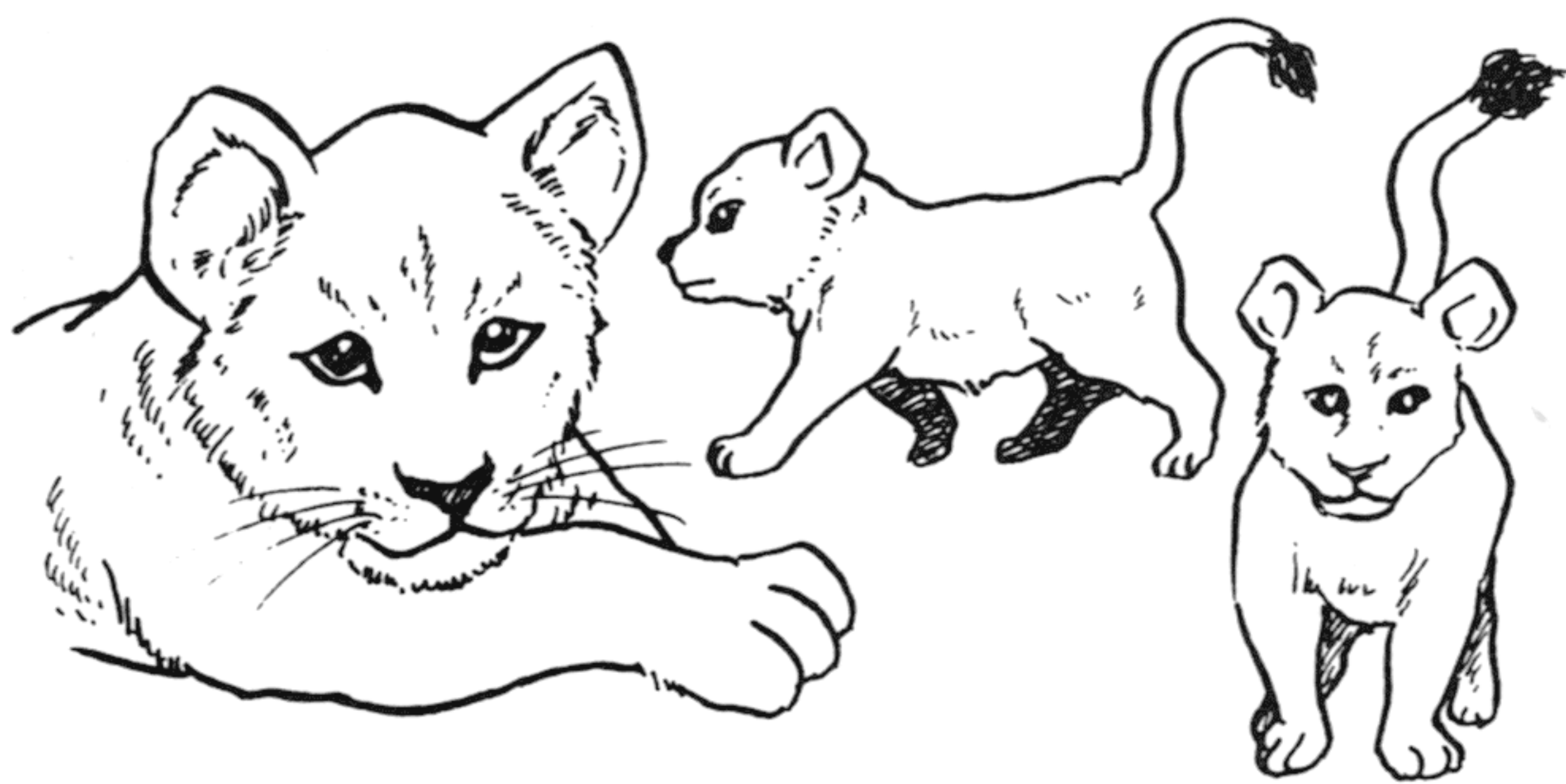
The Japanese macaque leans about one head-width forward.

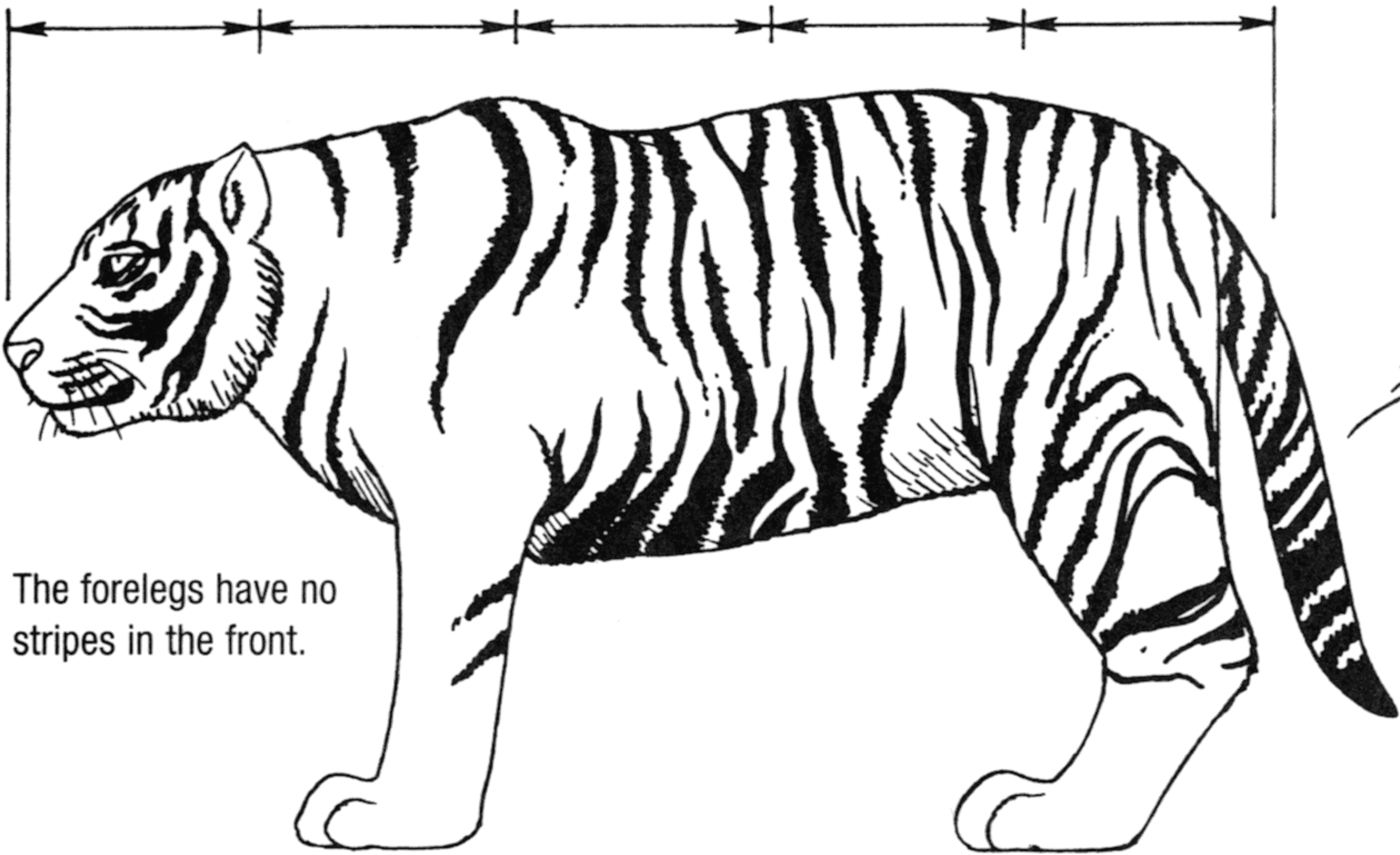
1

2

In the winter, the Japanese macaque grows about this thick.

Lions

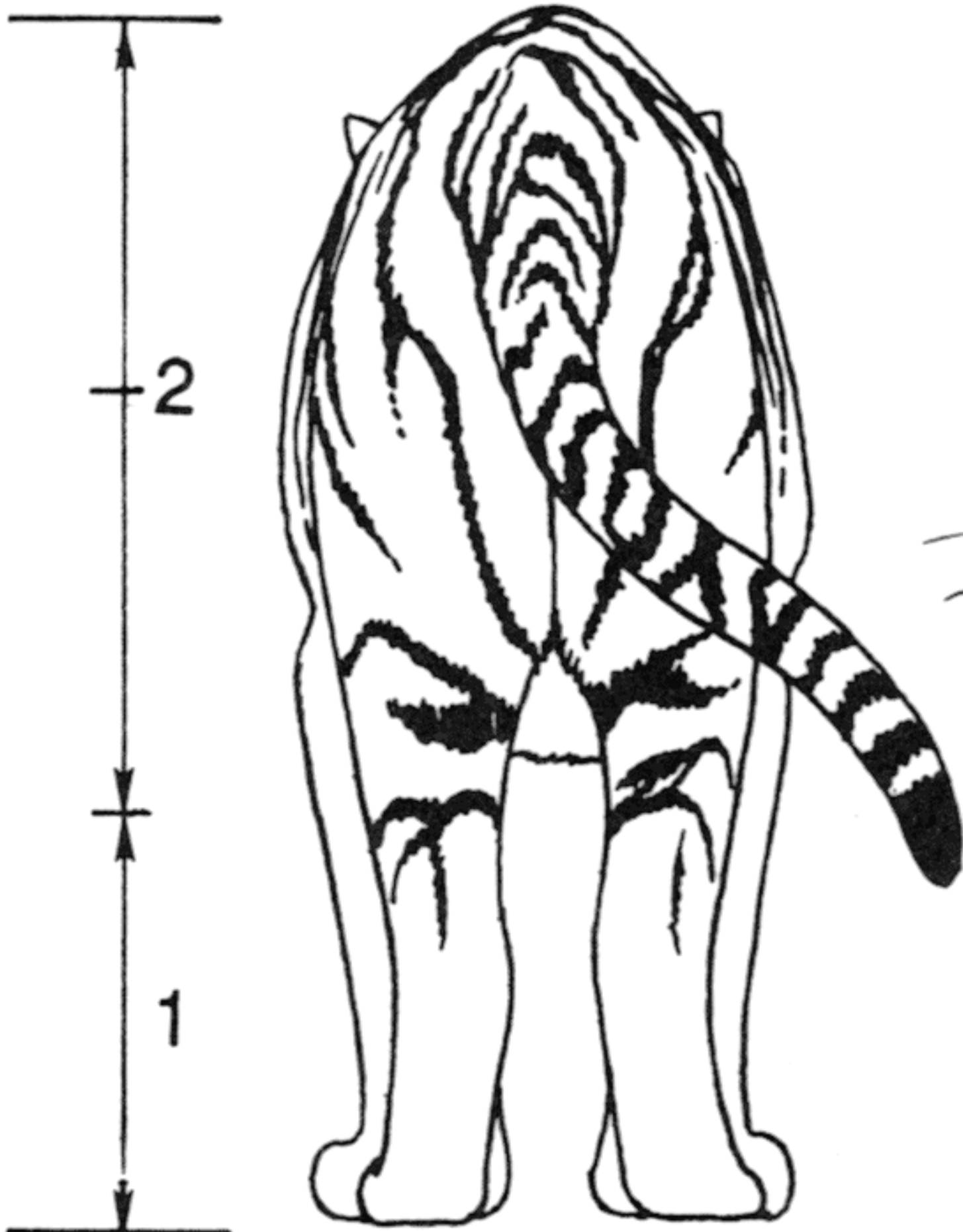
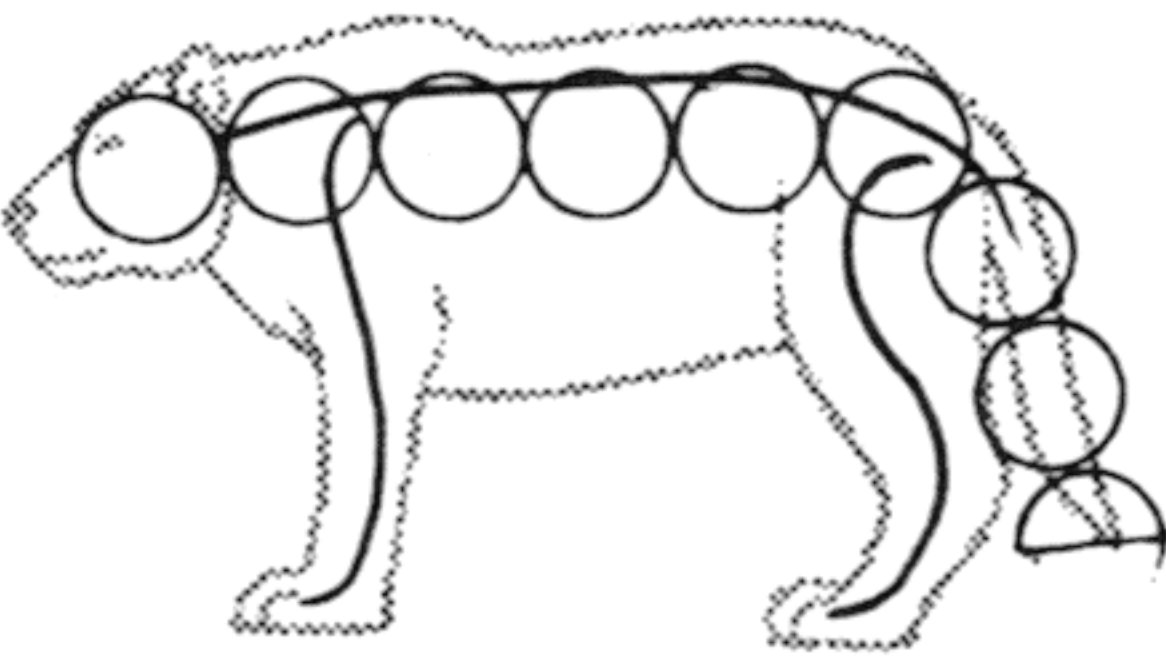
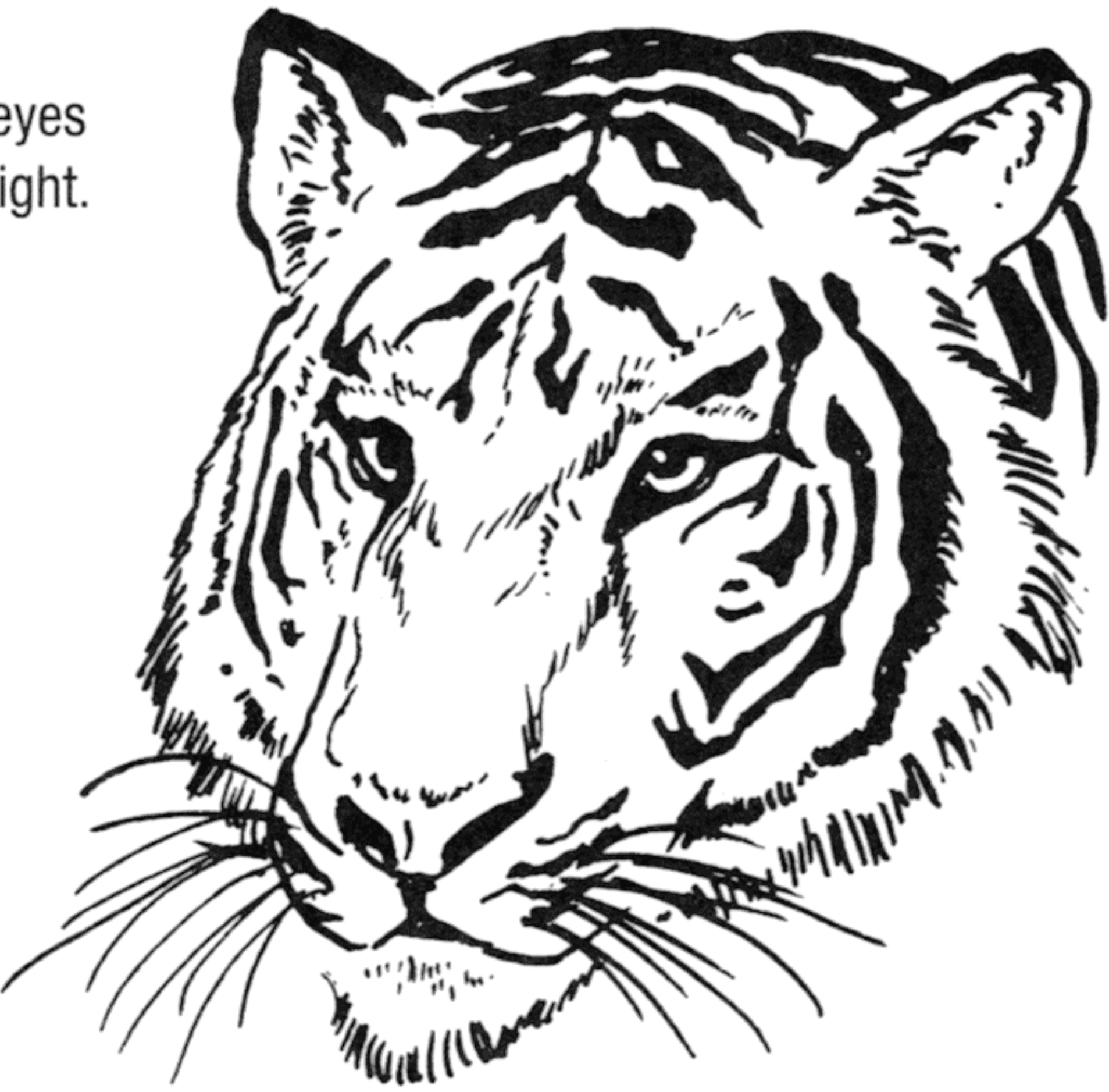
They way the mane grows varies from lion to lion. Use an octagonal shape for the lion's head and a hexagonal shape for the lioness's.

The forehead, eyes, nose, and chin are all spaced about evenly.

The mane radiates from the head.

The forehead occupies 1/3 of the face in profile and the muzzle, the other 2/3.

Lions have thick legs and large feet.

Tigers

The tiger has a round face. Use the eyes and the coat to project a sense of might.

The forelegs have no stripes in the front.

2

1

Spotted Big Cats

These are big cats with patterns on their fur. Draw them with large paws and a powerful trunk.

From the chest to the abdomen, the cheetah has a slim build. The legs are slender.

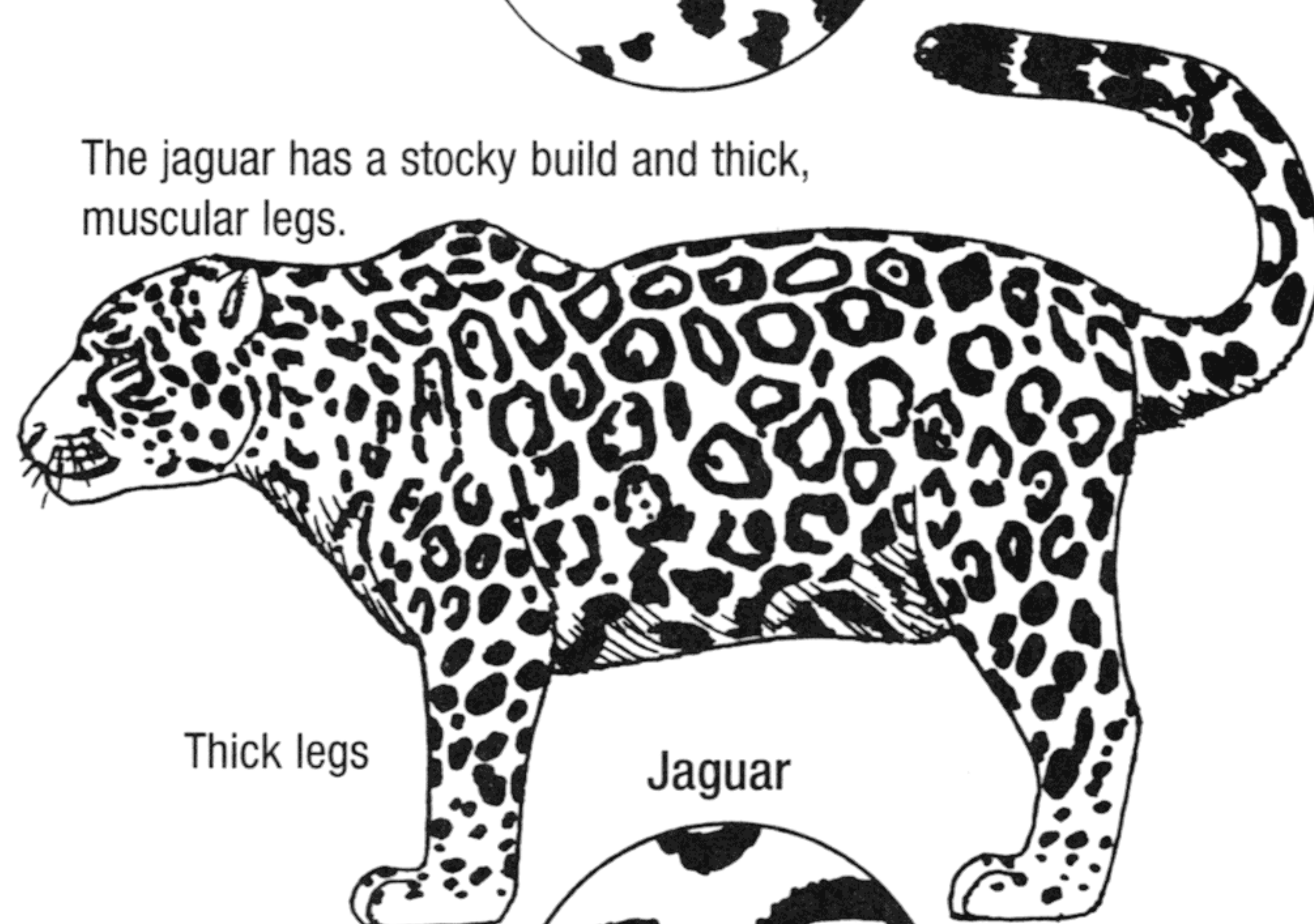
The leopard is more catlike and stockier than the cheetah.

Cheetah

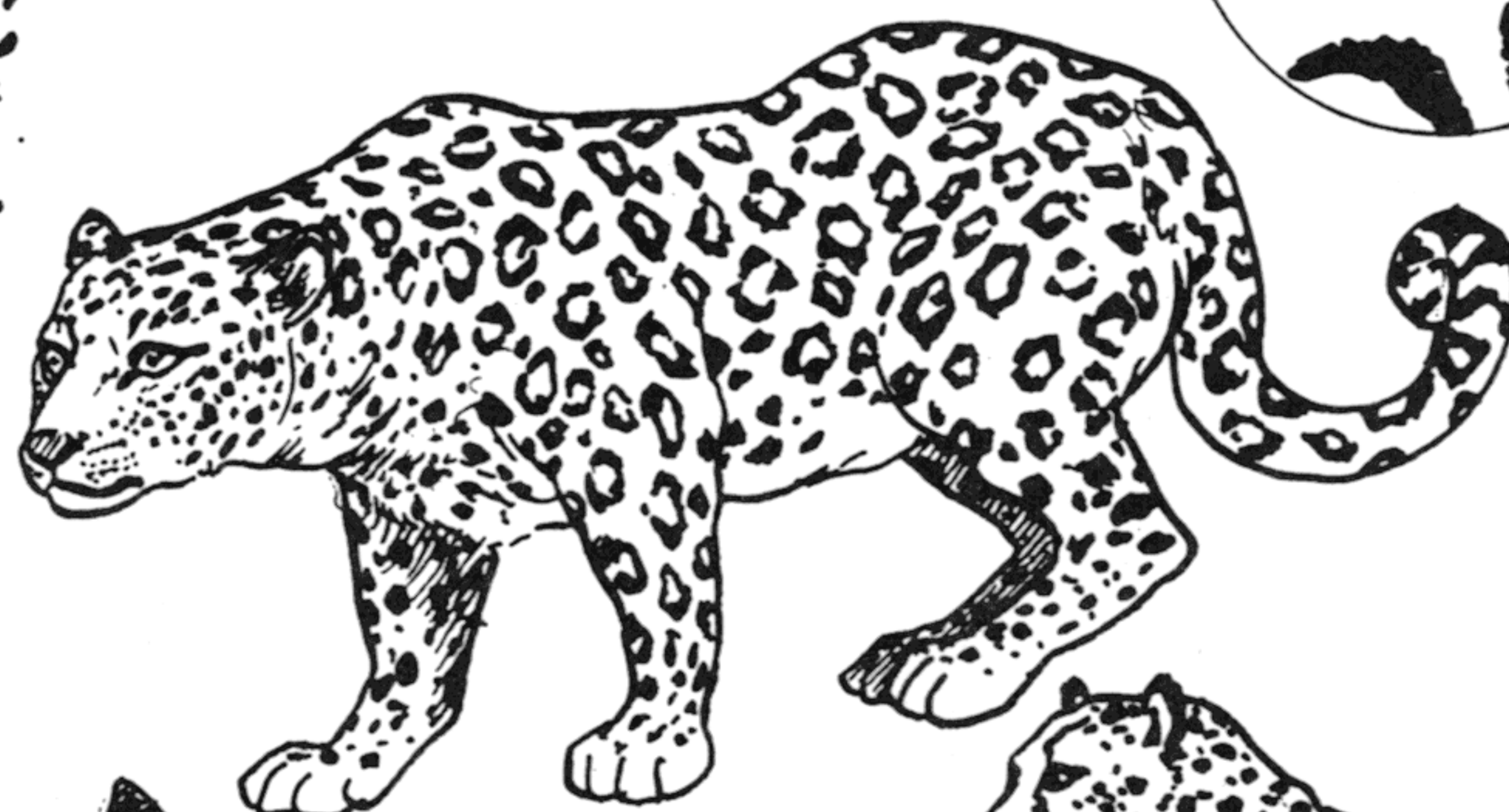
The cheetah has small, round spots.

Leopard

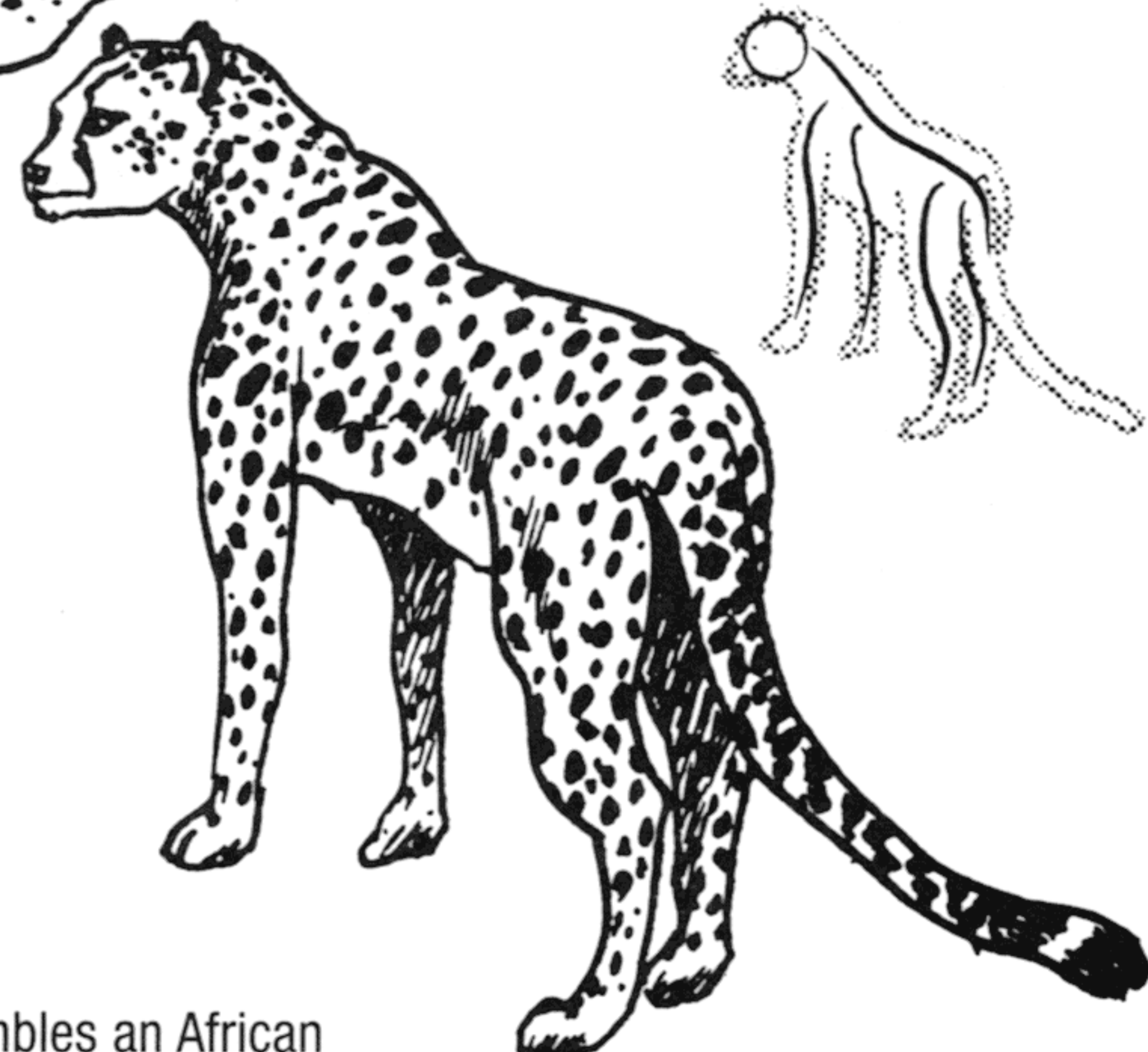
The jaguar has a stocky build and thick, muscular legs.

he majority of the leopard's spots have the appearance of two semicircles attached together.

Thick legs

Jaguar

The jaguar's individual spots are large with small, black dots in the center.

Panther

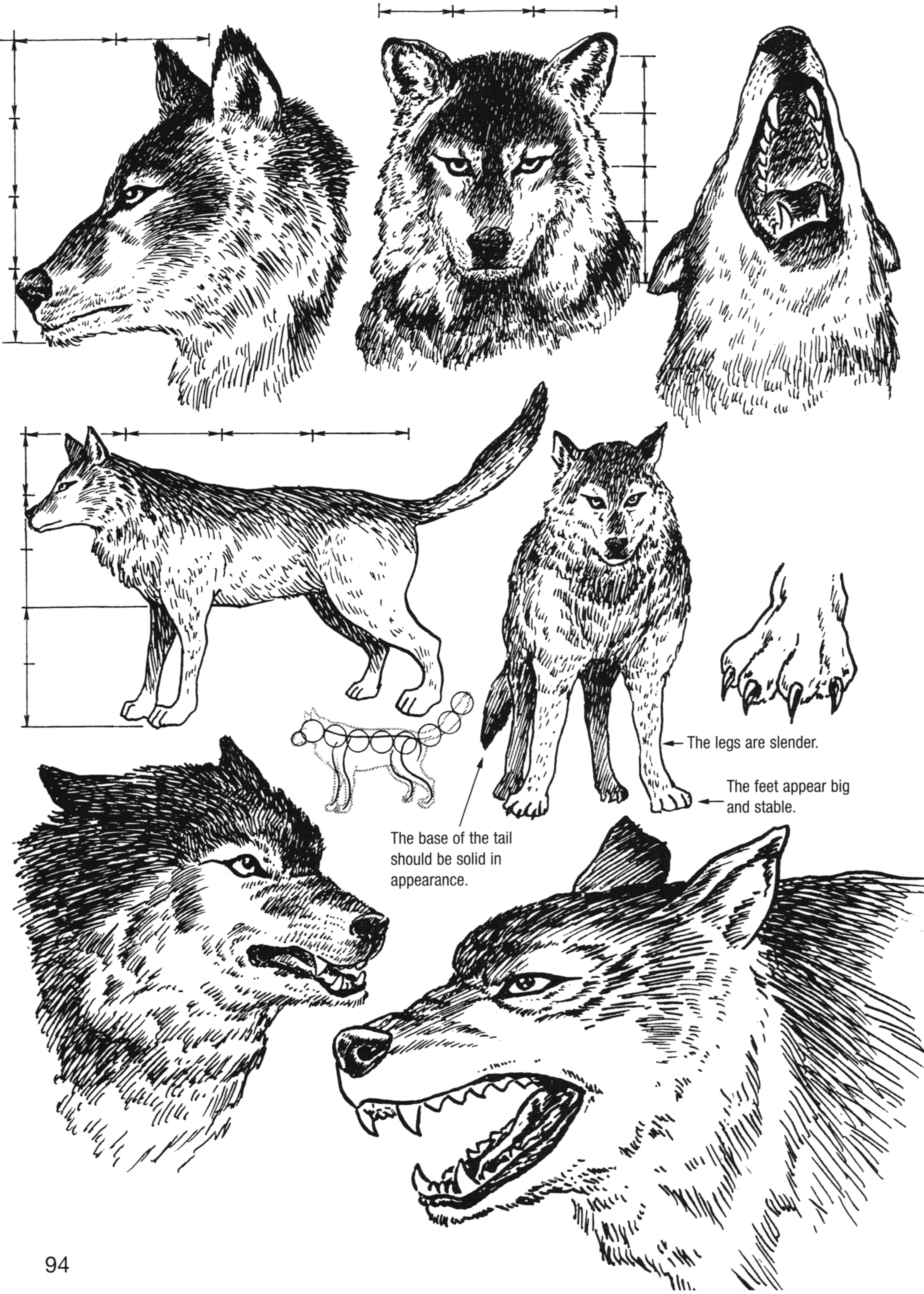
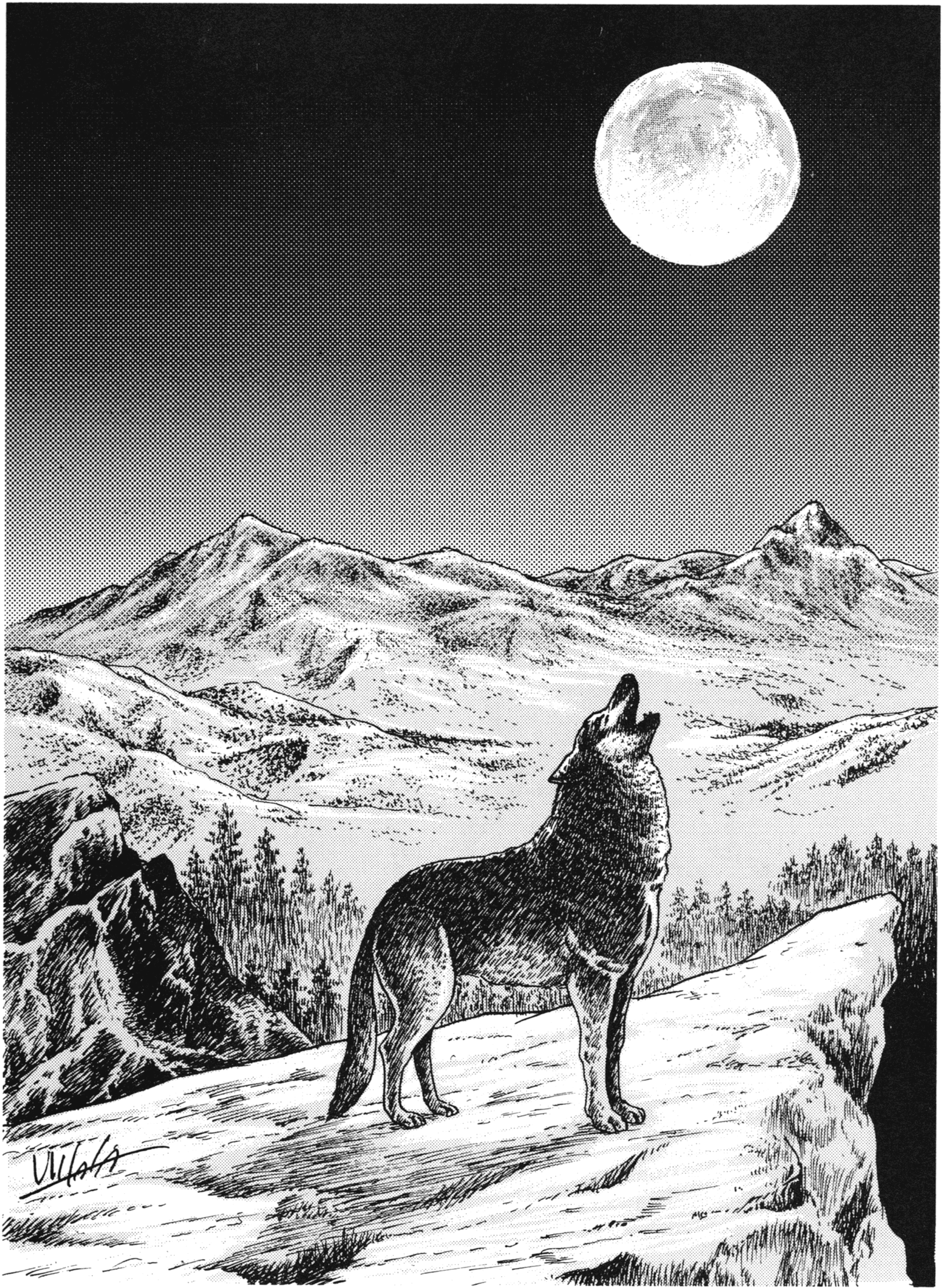
Mountain Lion

The mountain lion has no spots and closely resembles an African or Asian lioness at first glance. Draw the mountain lion with pointed ears and wide face to distinguish it from other species.

Wolves

To distinguish the wolf from a dog, draw the wolf with a longish snout and piercing eyes.

The legs are slender.

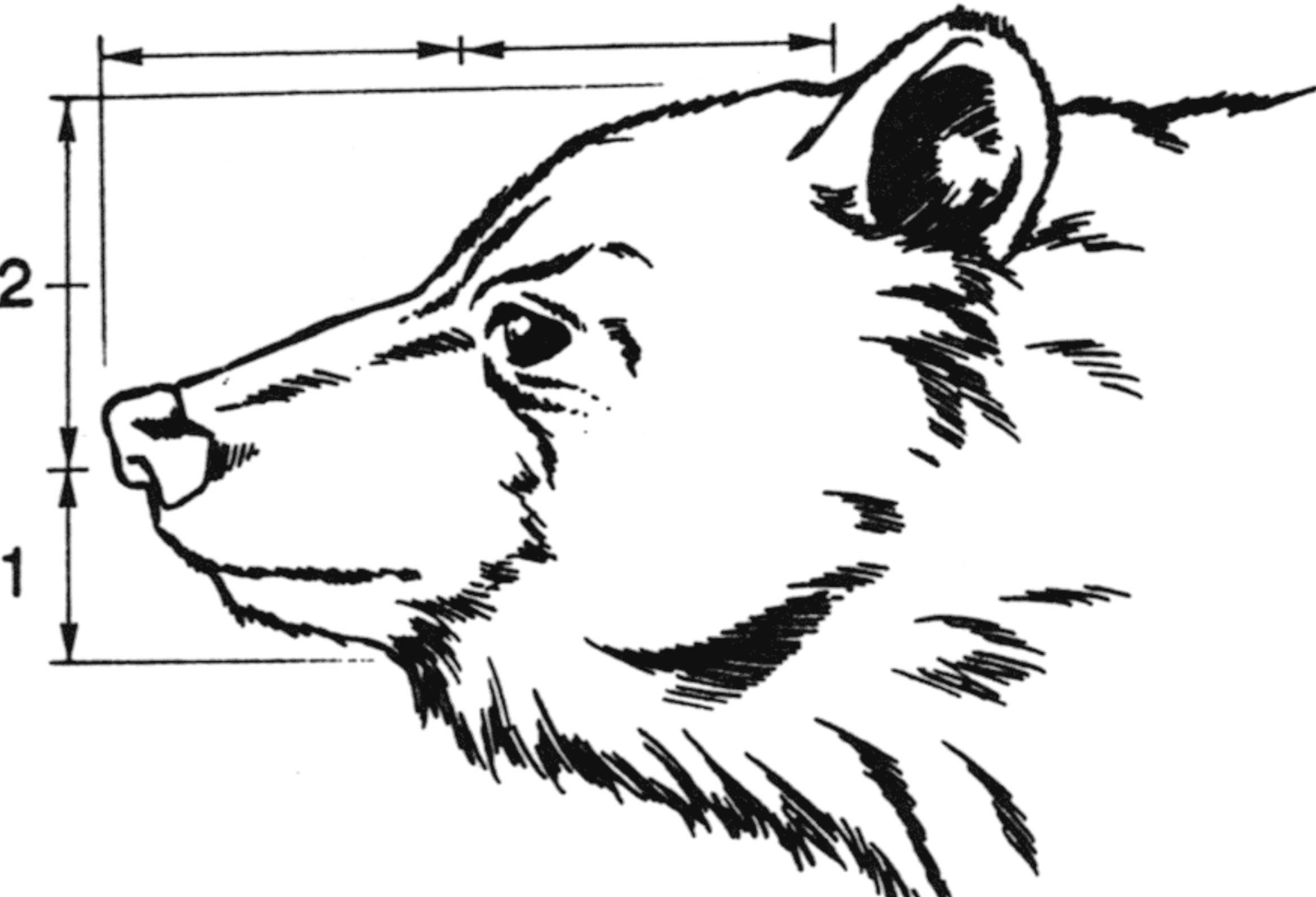
The feet appear big and stable.

The base of the tail should be solid in appearance.

Bears

The space between the ears is wider than those of the eyes. The forehead forms a gentle arc.

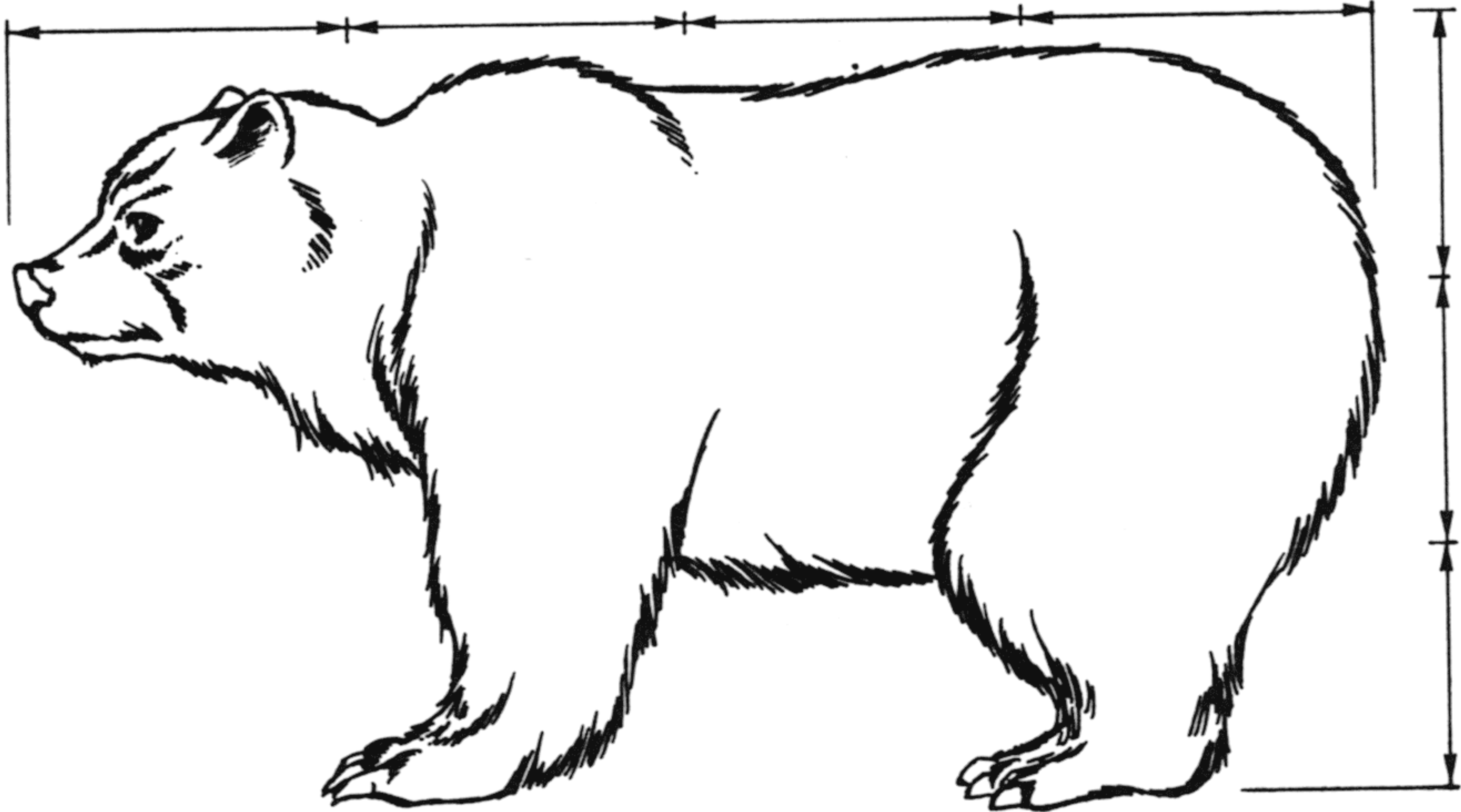
The ears are semicircular.

2

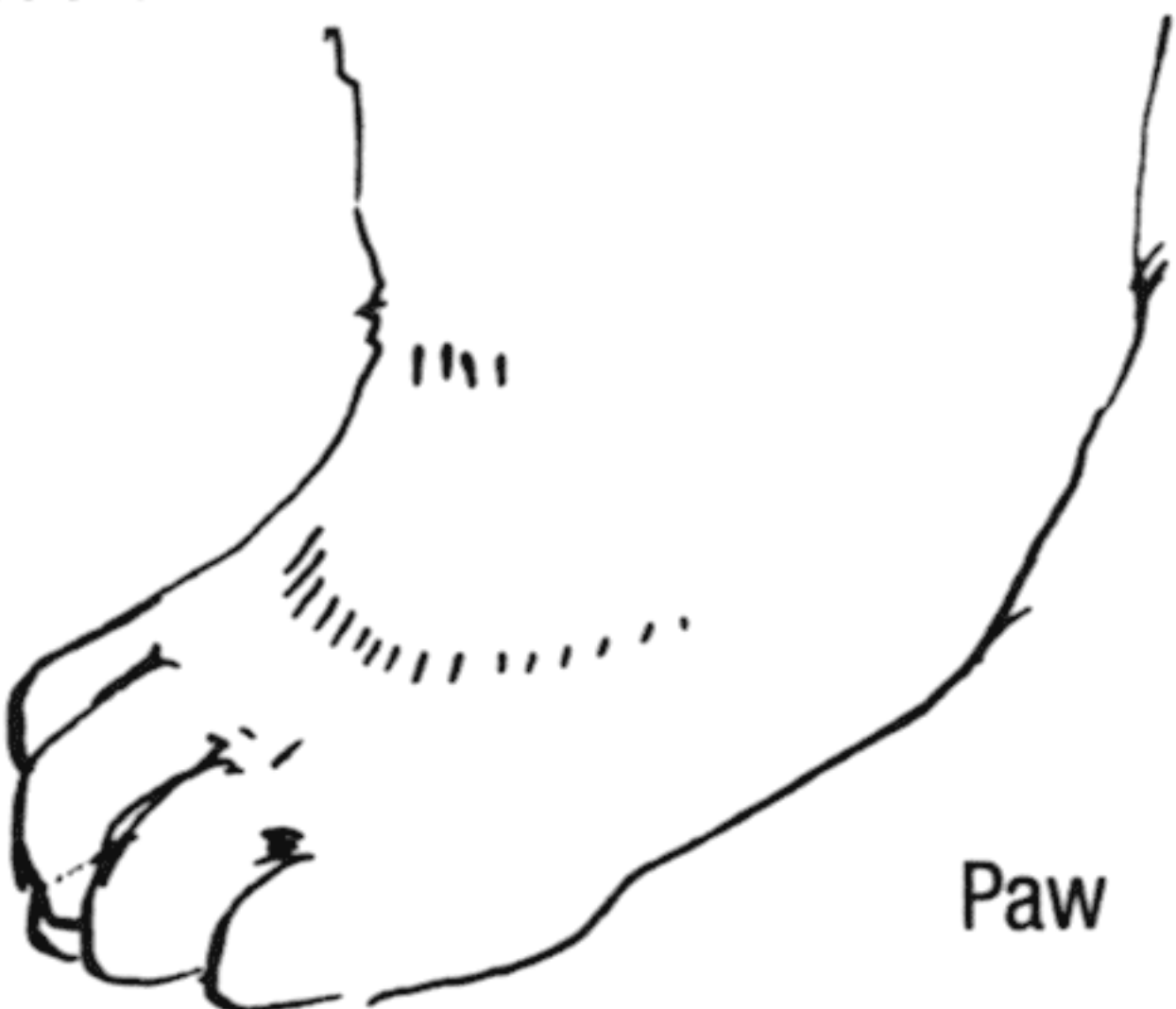
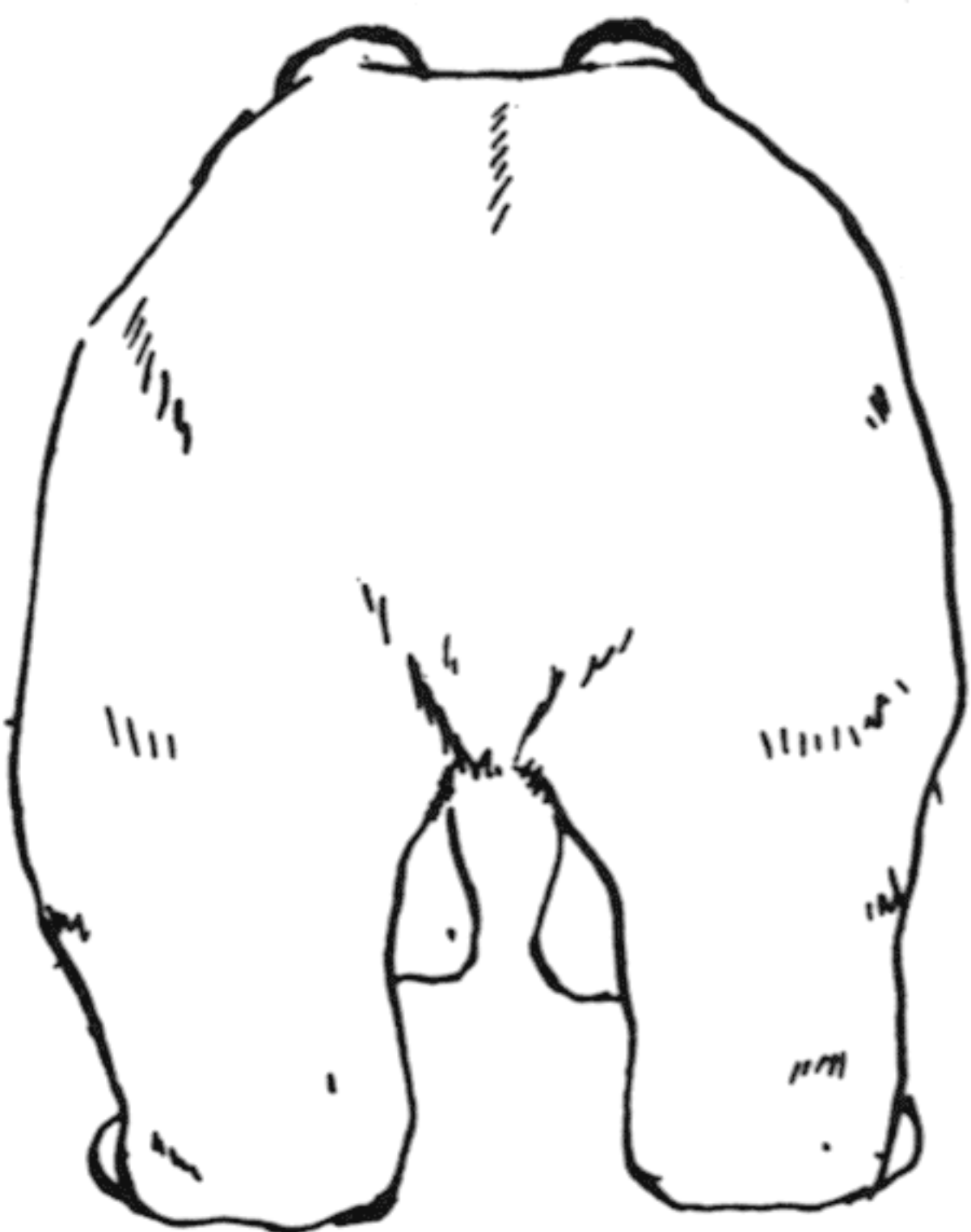
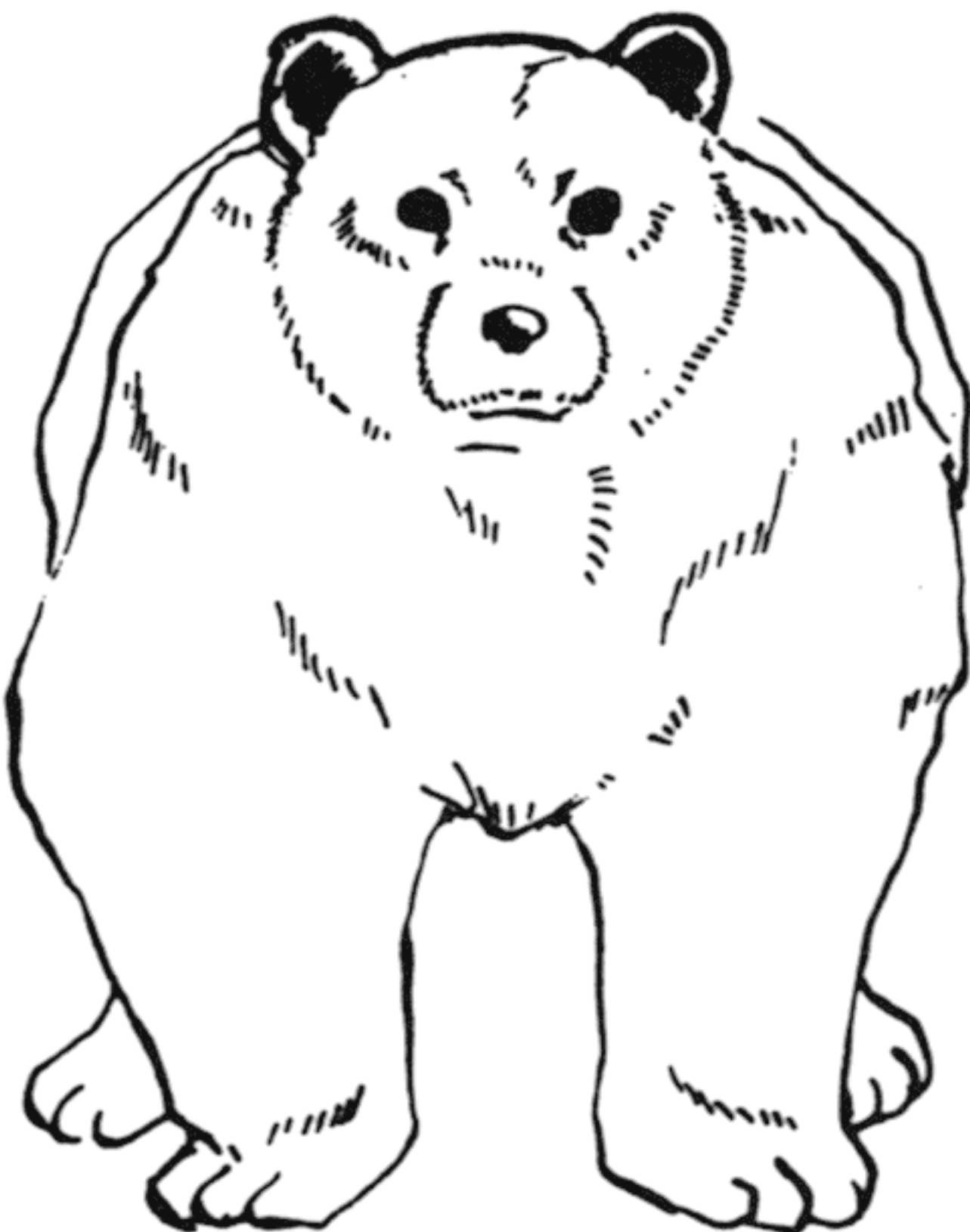
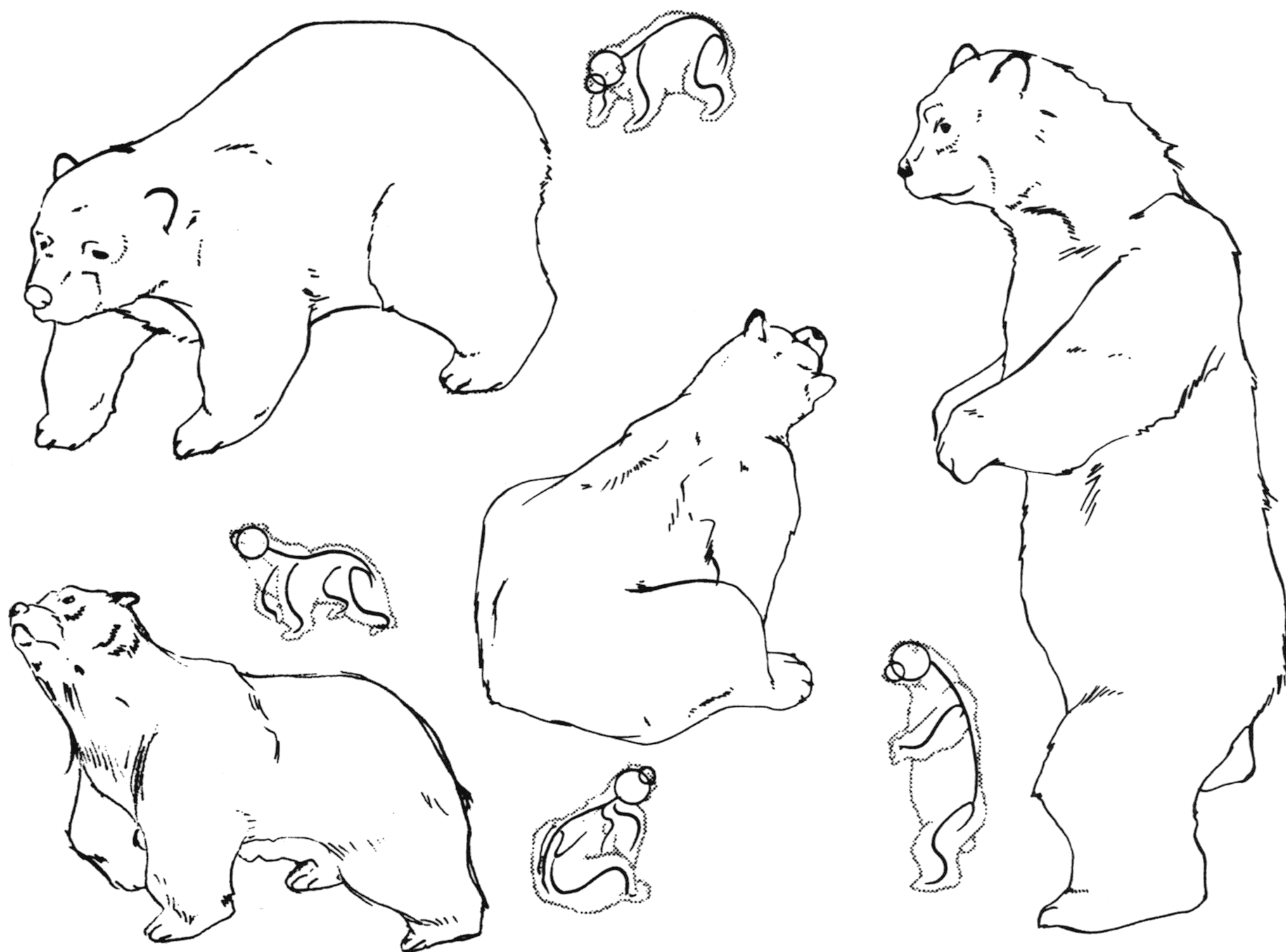
1

The trick to drawing the profile is to keep the distance between the eyes and ears on the wide side. Bringing the eyes too close to the ears will make your bear look more like a dog.

The direction of the fur's nap in the figure above gives the impression that this bear is worried.

The bear's head forms almost a perfect circle from the front.

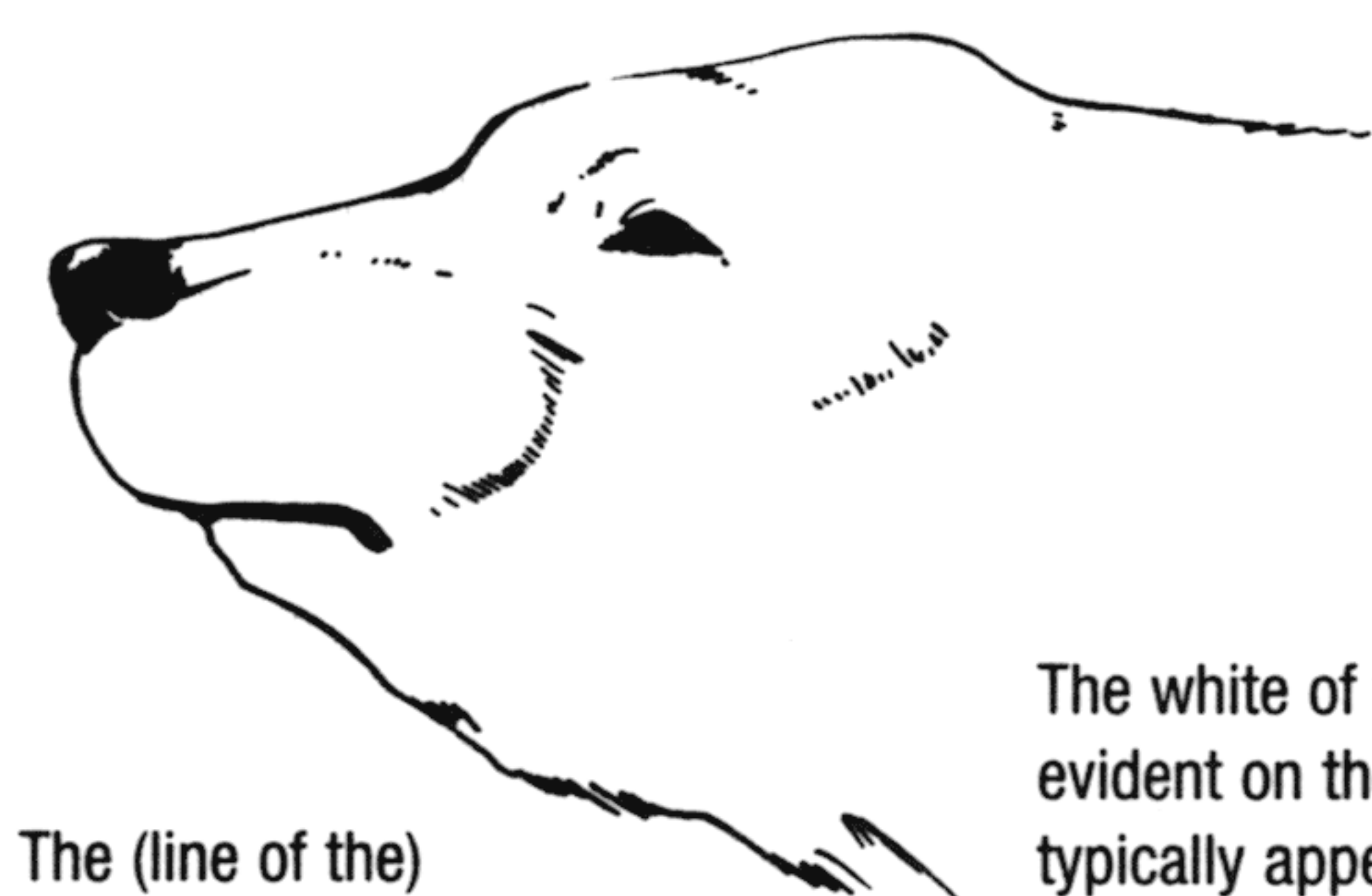
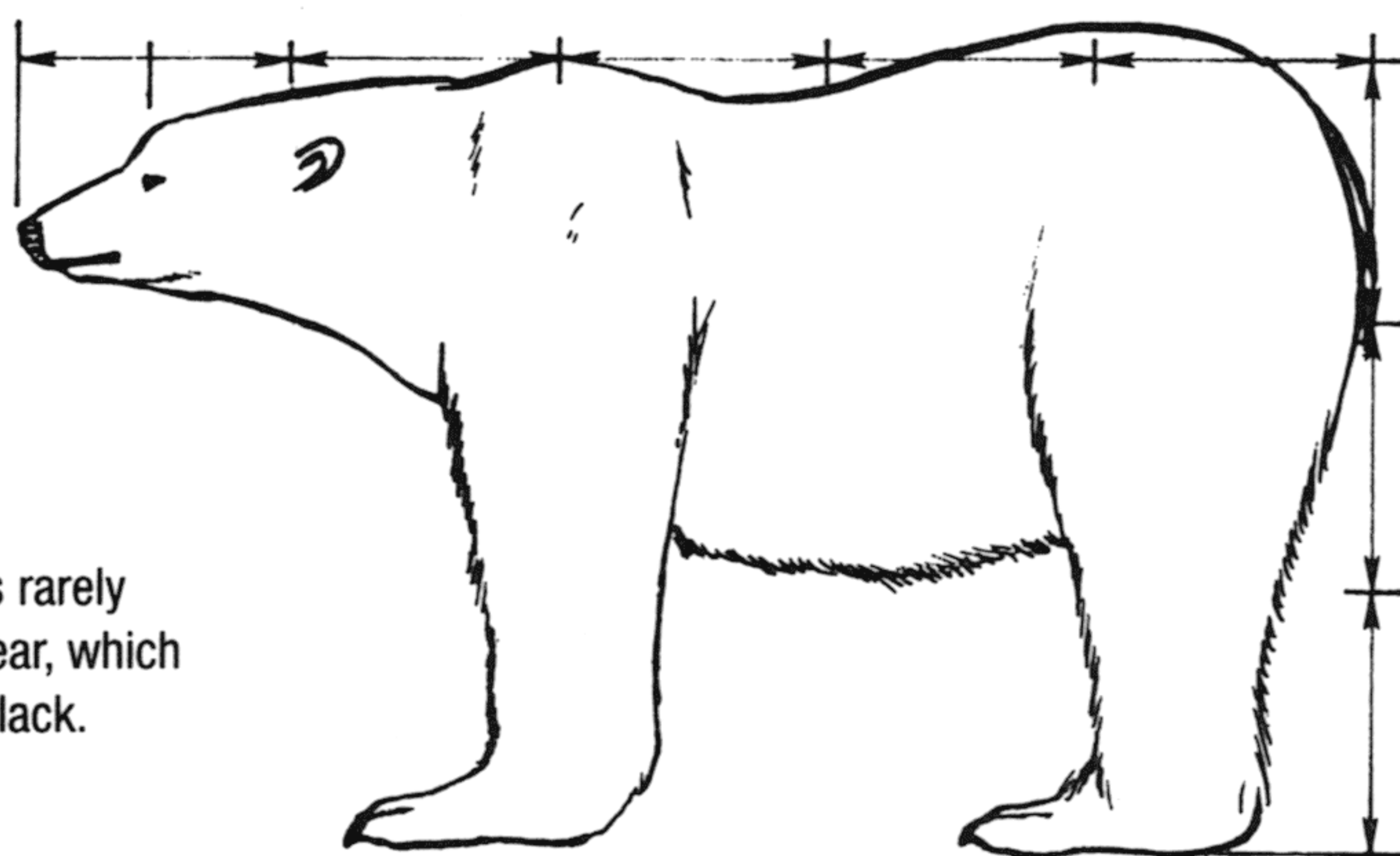
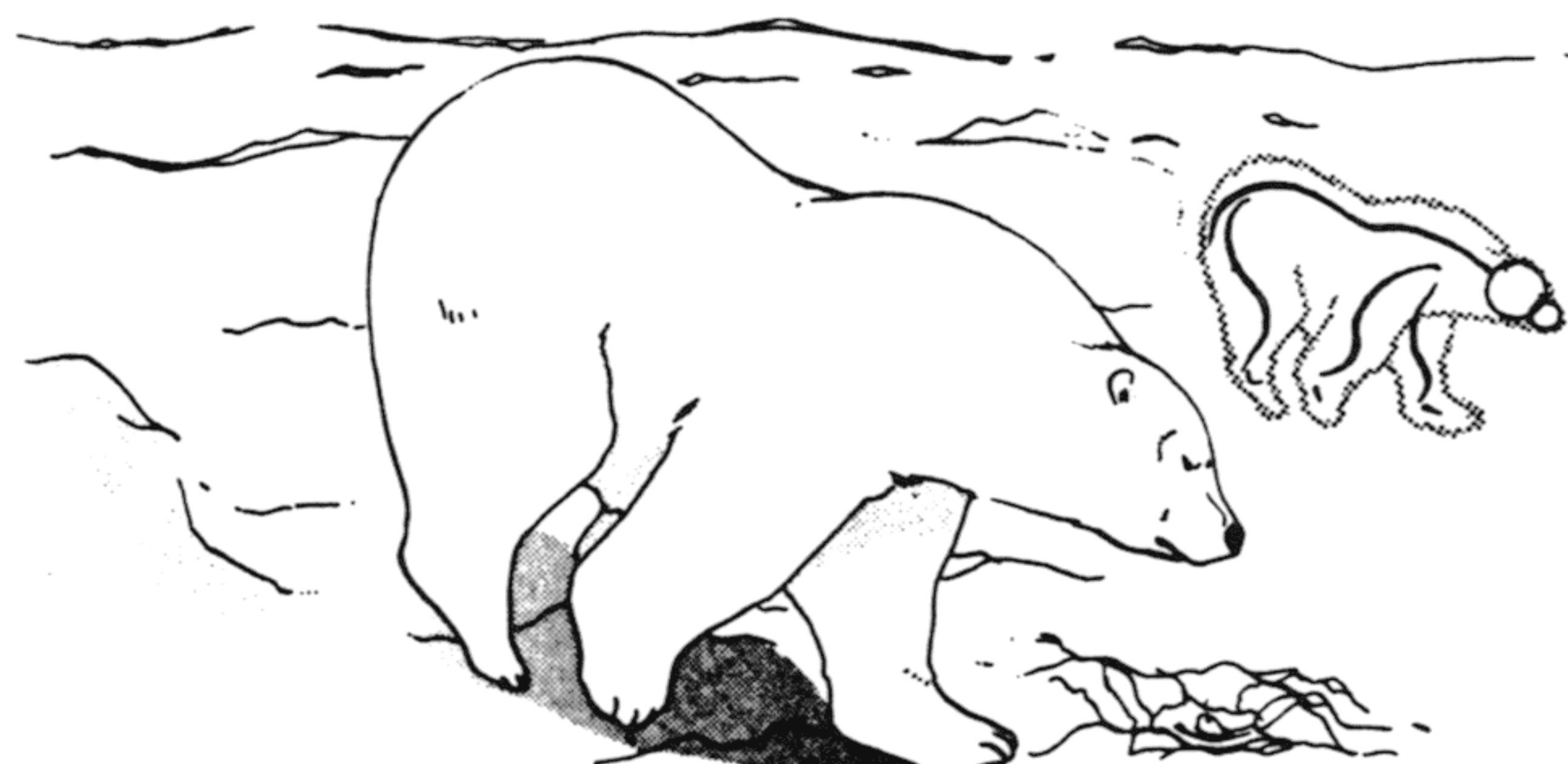
The shoulders form rounded hills on the back. Use the shoulders as guides when drawing the forelegs.

The flats of the front paws are small—equal to about only 2/3 of the face.

Front paw underside

The tail is short.

Paw

Polar Bears

The polar bear has a more squarish face than the average bear. A distinguishing feature lies in its large paws, which are about the same size as its head.

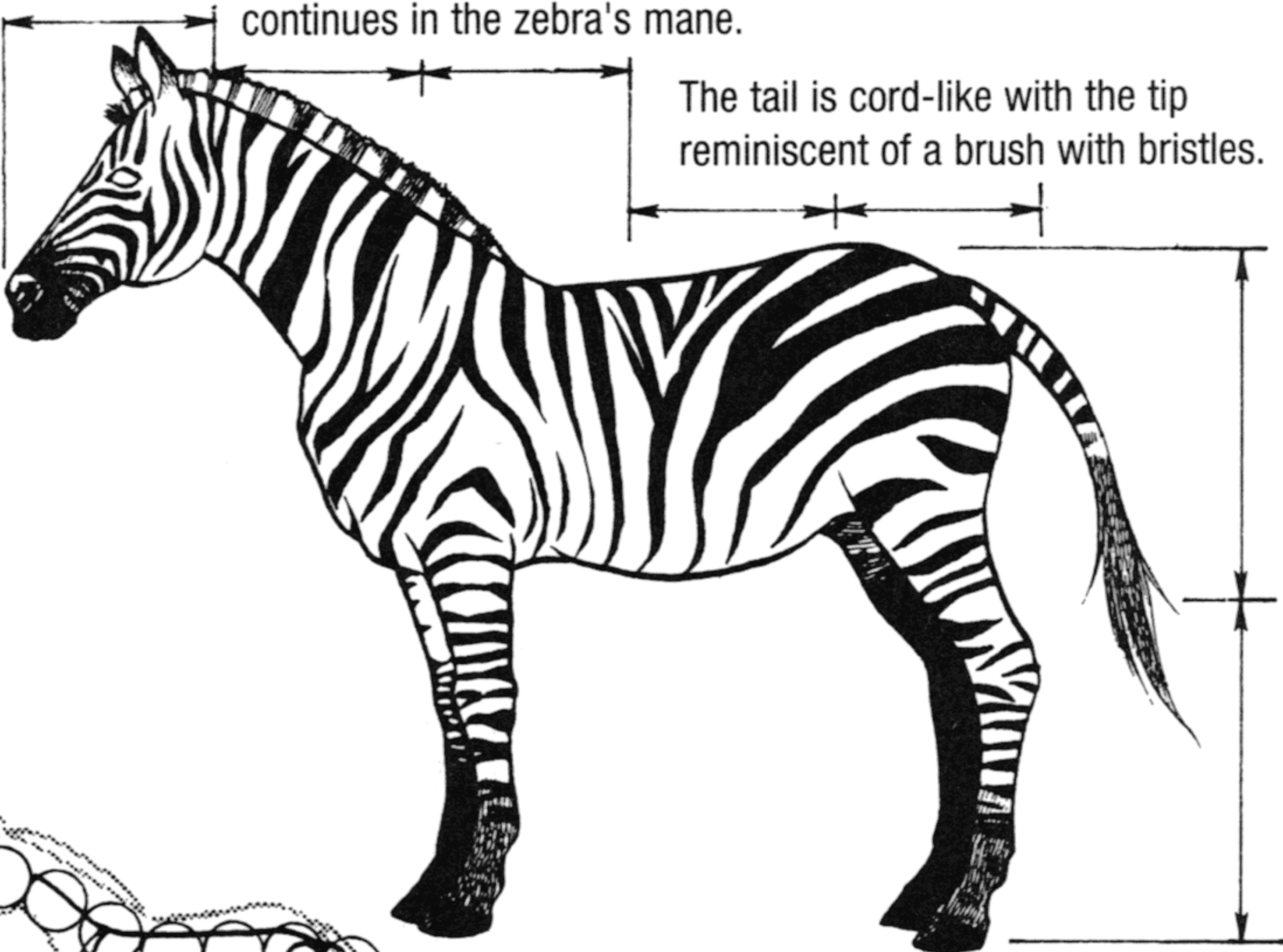
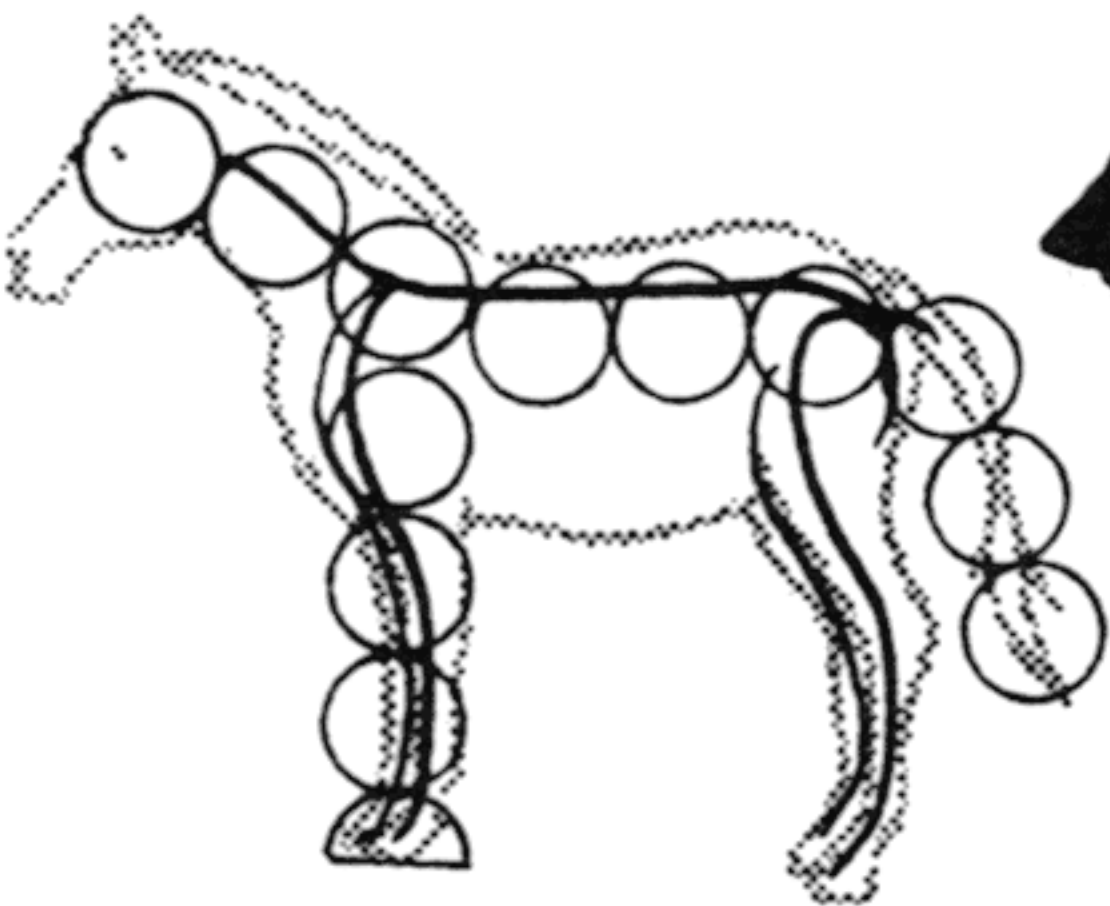
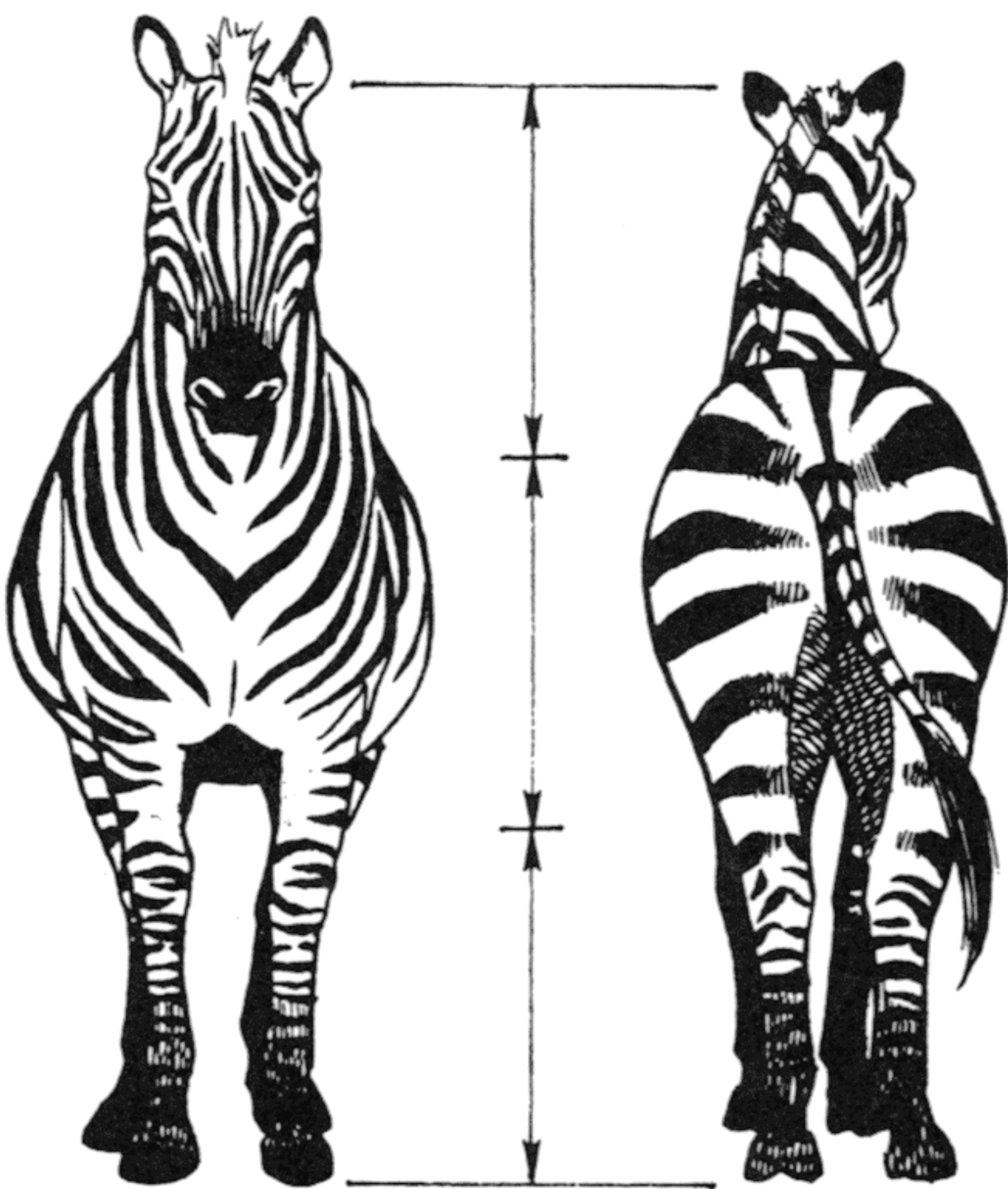
The ears are positioned toward the back of the head, spaced as distant from the eyes as the eyes are from the nose—a distinctive trait of this species.

The white of the eye is rarely evident on the polar bear, which typically appear coal black.

The (line of the) mouth is black.

The nose is black.

Zebras

The ears are spaced approximately the equivalent to half the head's full width.

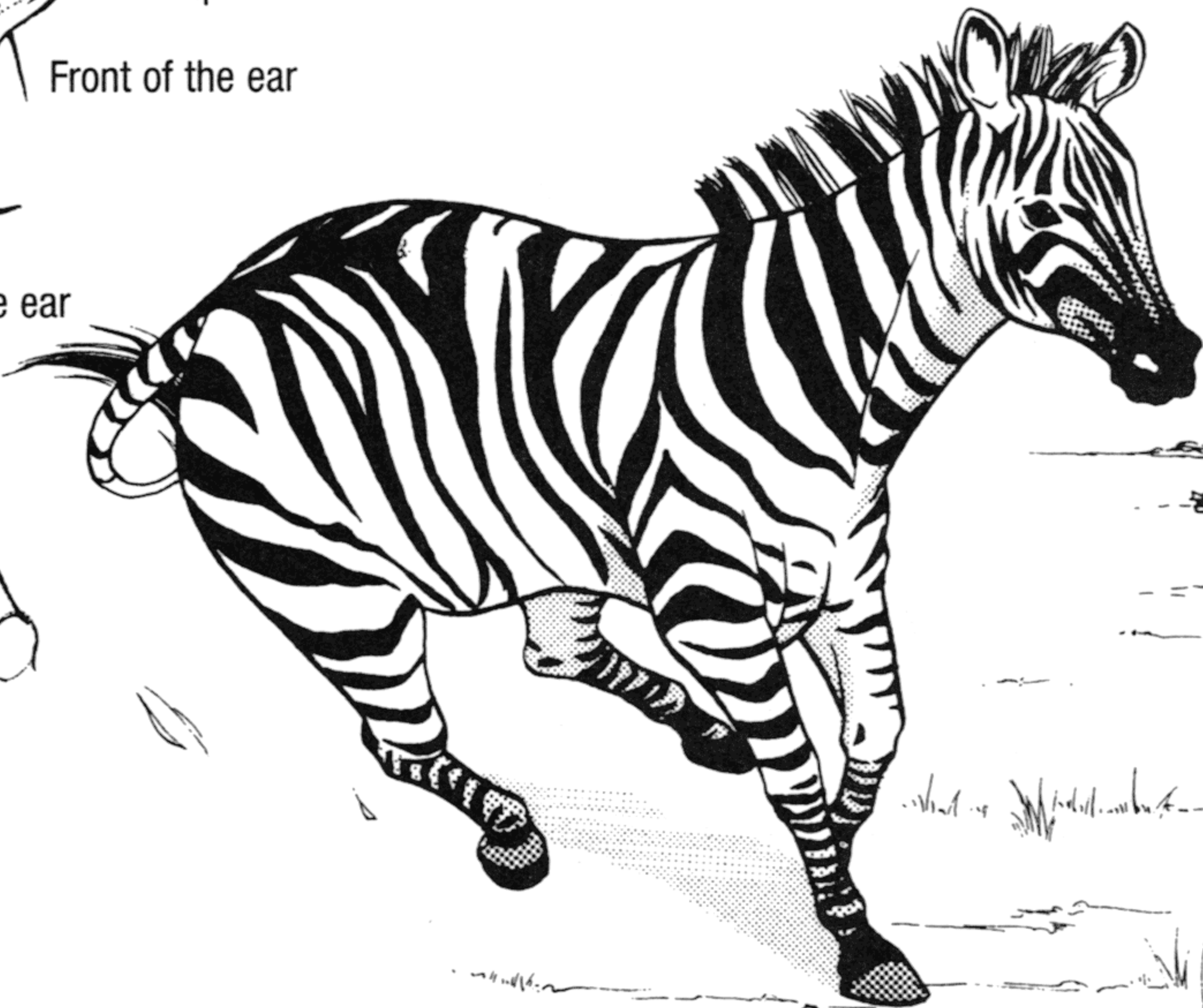
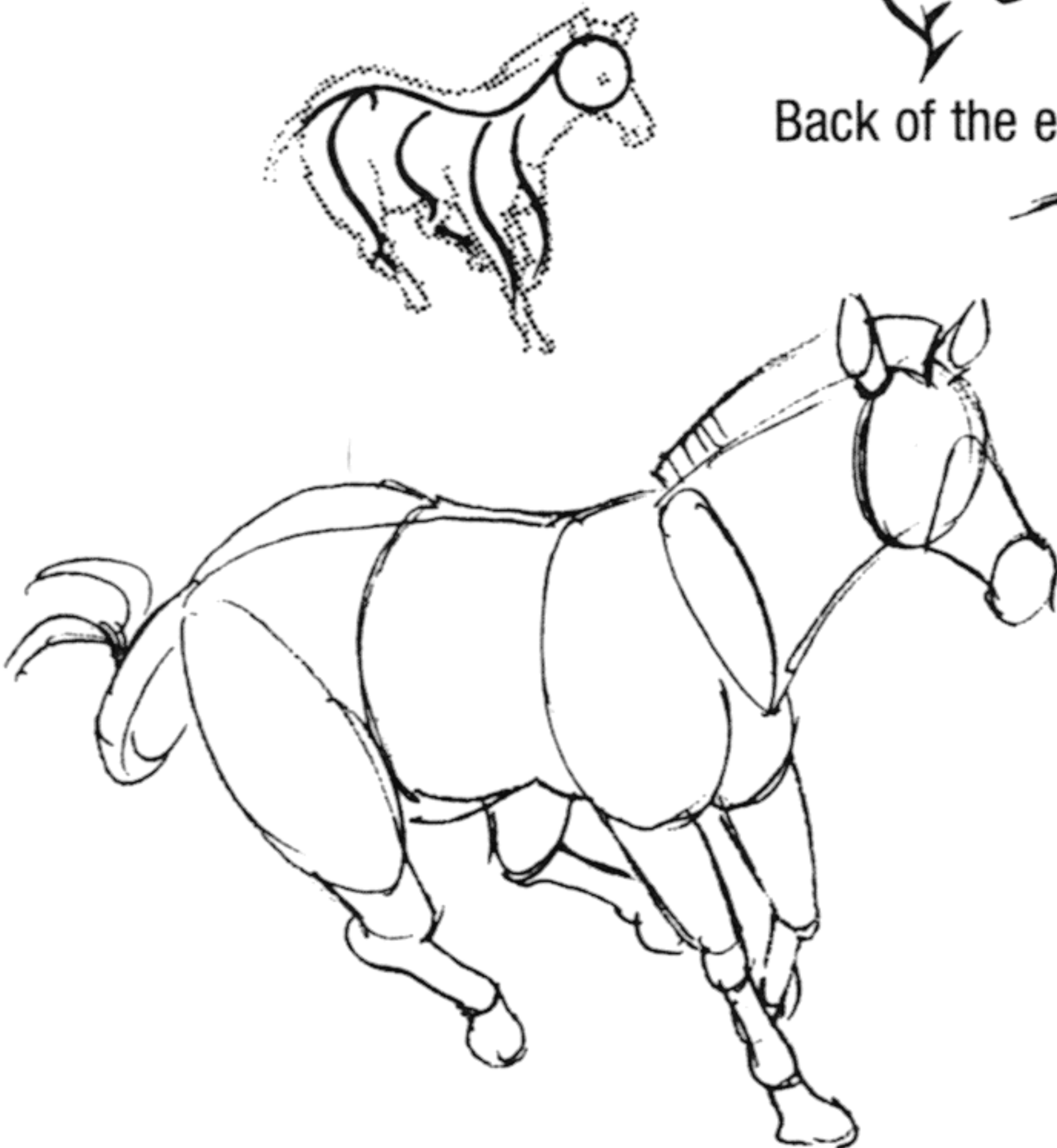
The stripes are symmetrical.

The zebra's cheeks are round and stick out more than the common horse.

The pattern of black stripes continues in the zebra's mane.

The tail is cord-like with the tip reminiscent of a brush with bristles.

Ear

The ear is rhomboid in shape.

Front of the ear

Back of the ear

Giraffes

The giraffe has a protuberance on its forehead.

The eyes slant downward when seen in profile.

The ears are shaped like long scoops.

1

2

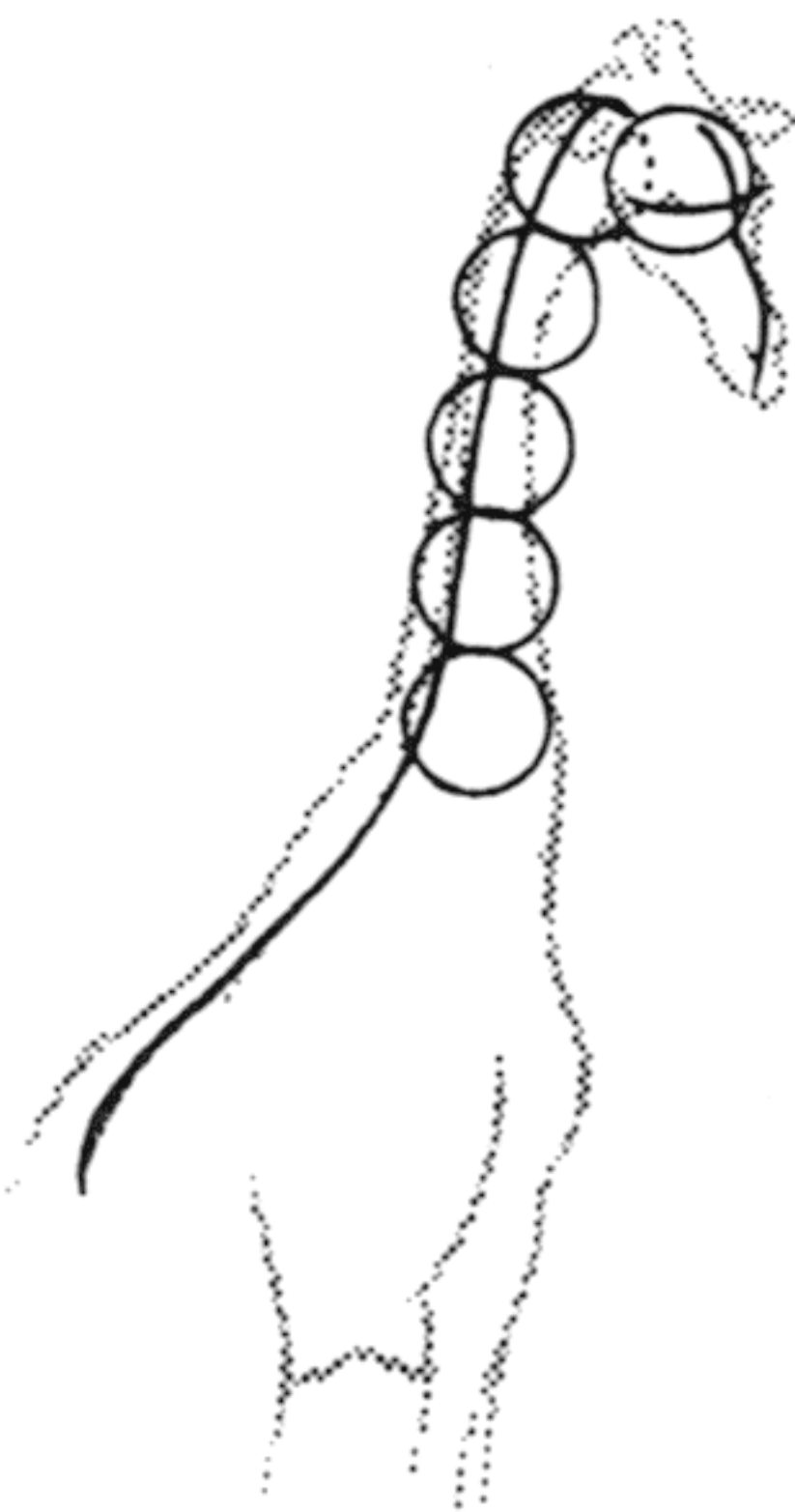
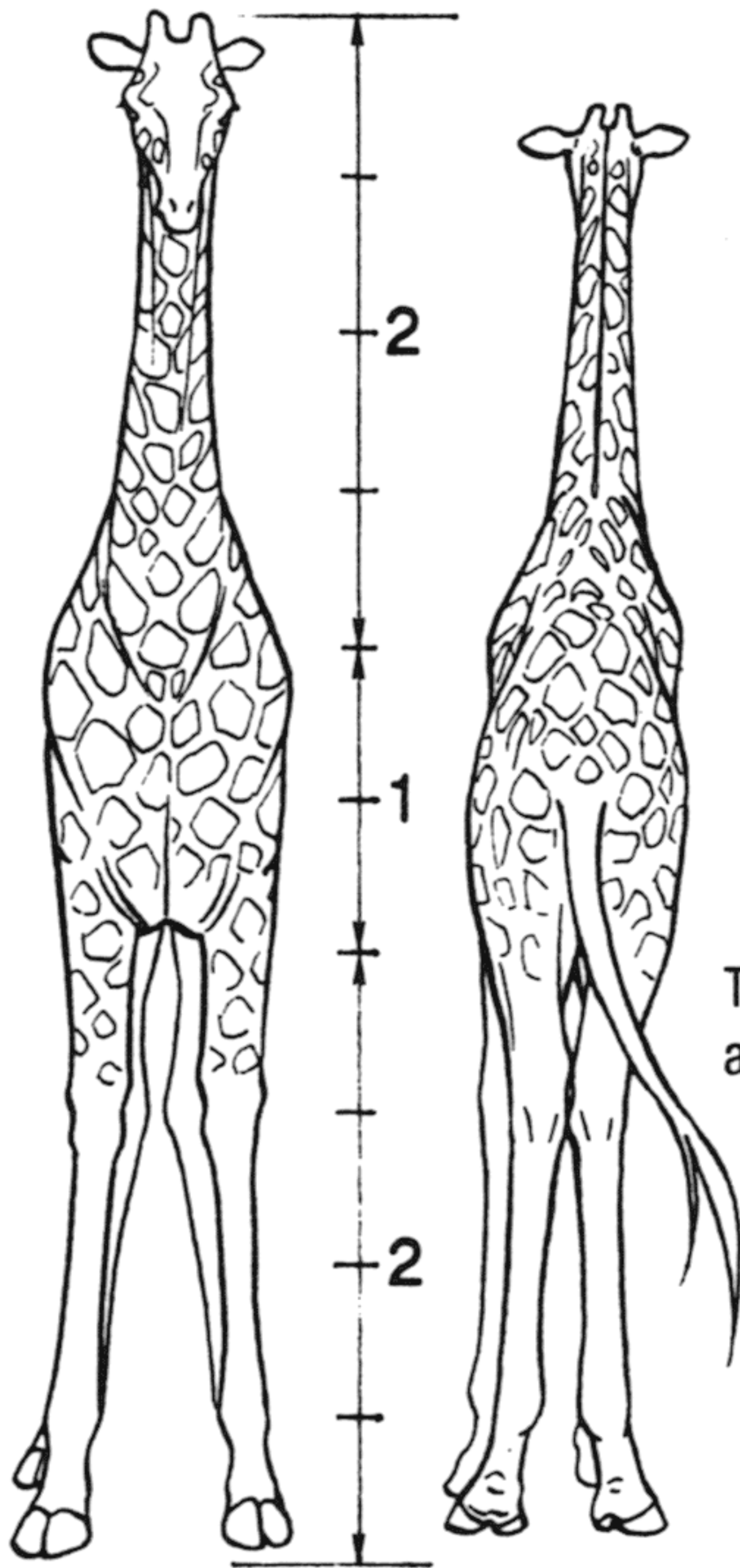
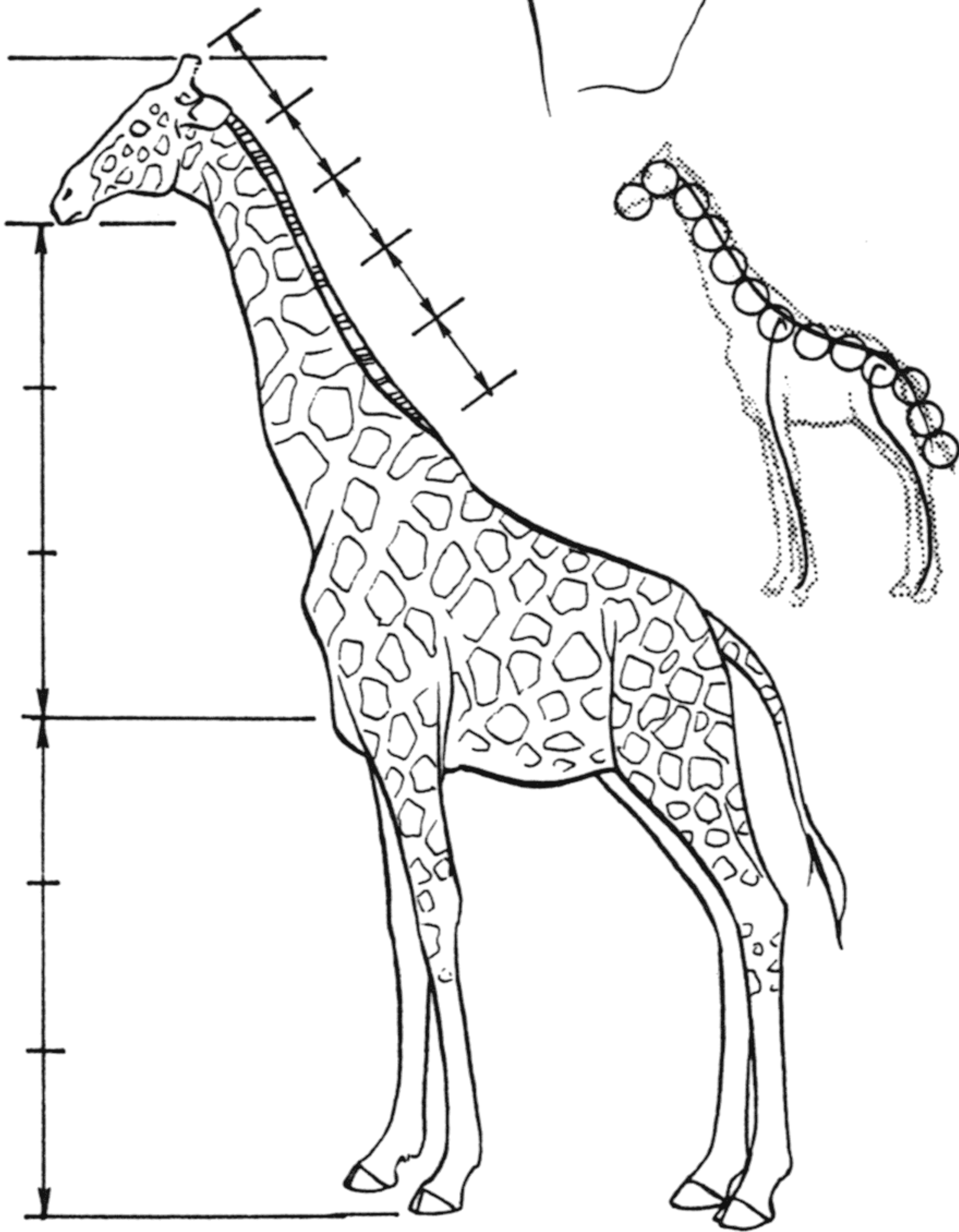
The face forms a vertically long hexagon.

Figure shows face looking down slightly

The head becomes foreshortened when looking upward.

2

1

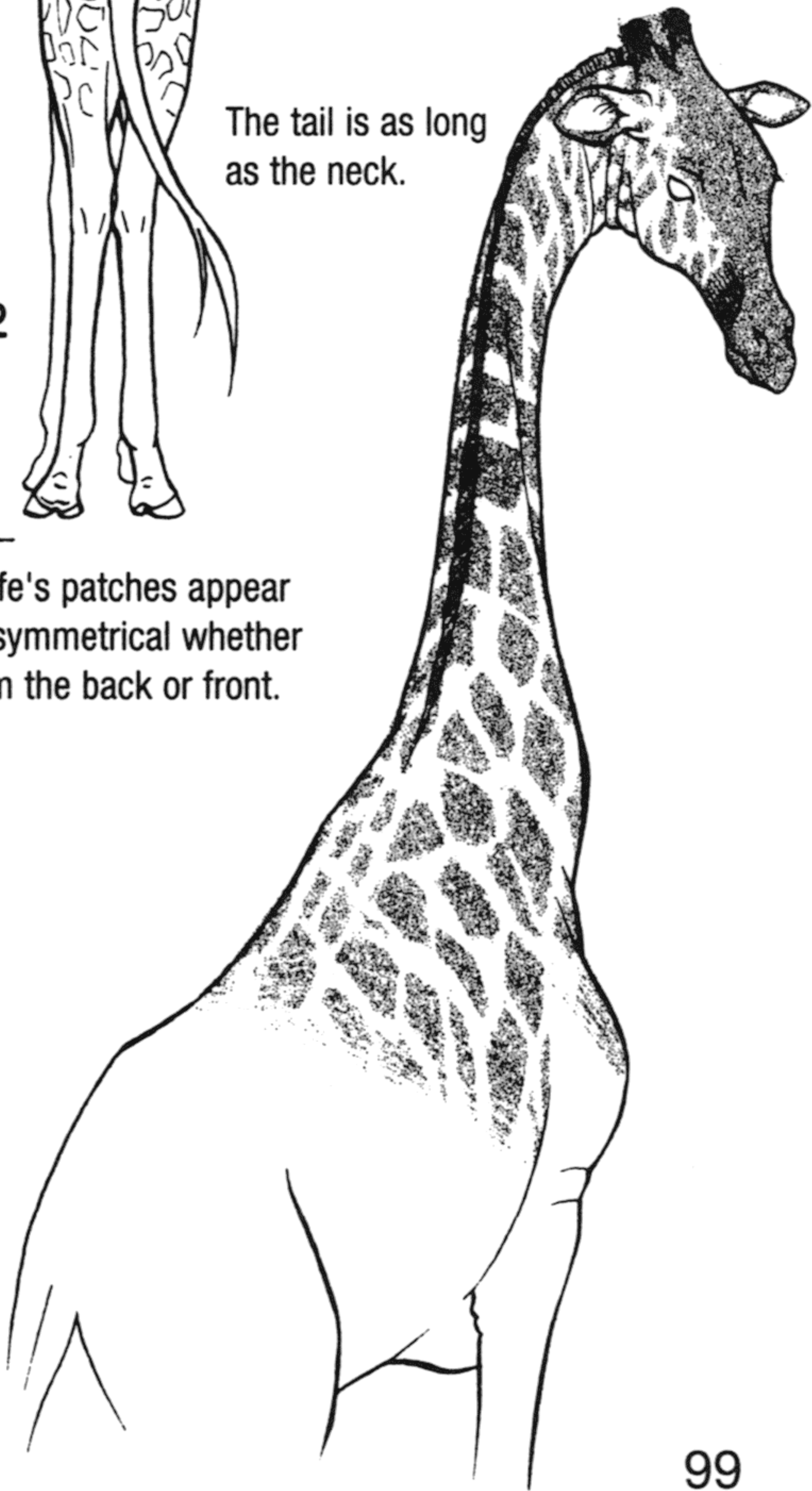
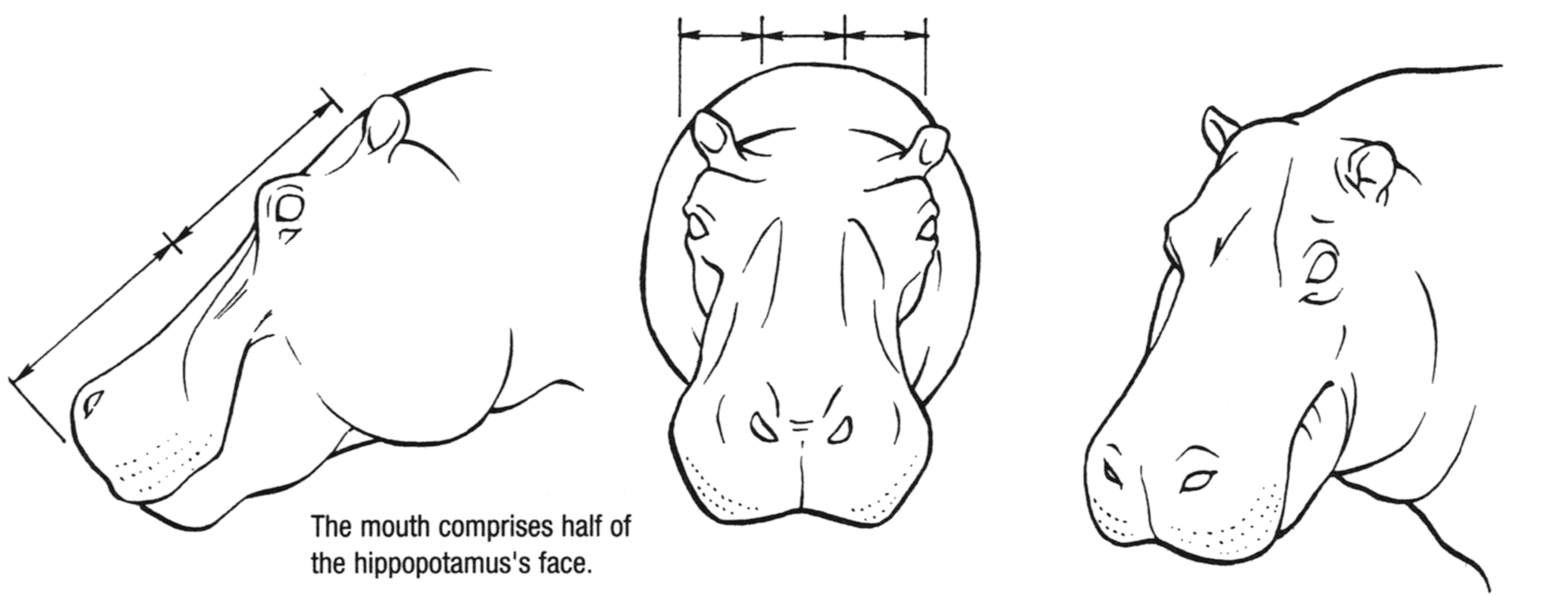
2

The tail is as long as the neck.

The giraffe's patches appear virtually symmetrical whether seen from the back or front.

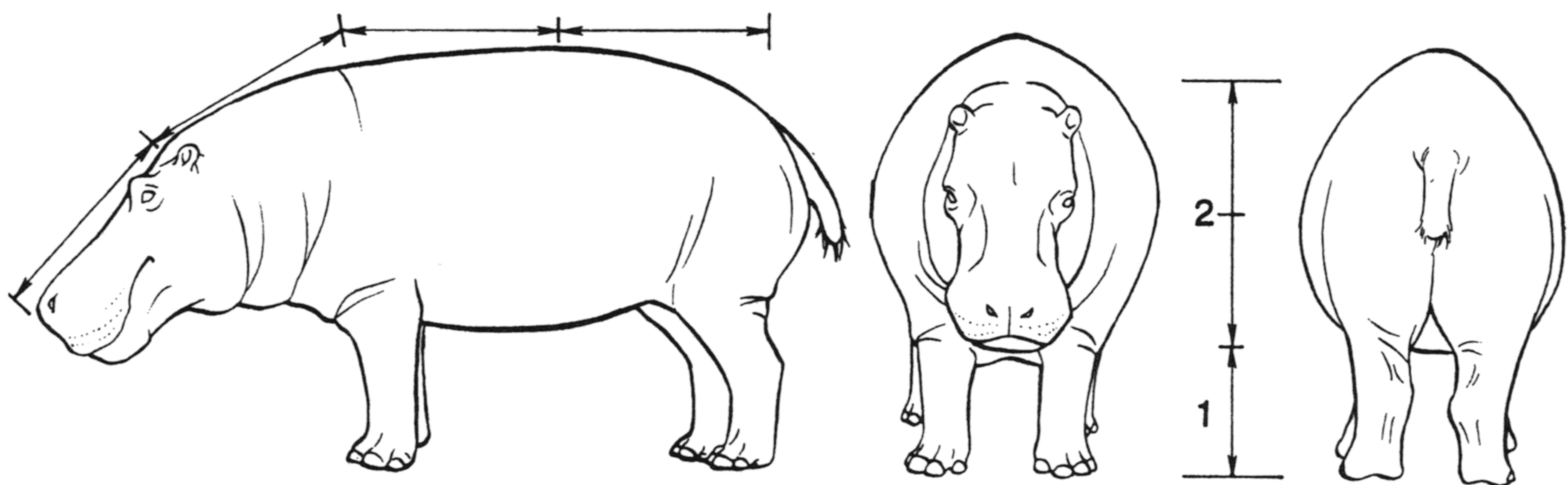
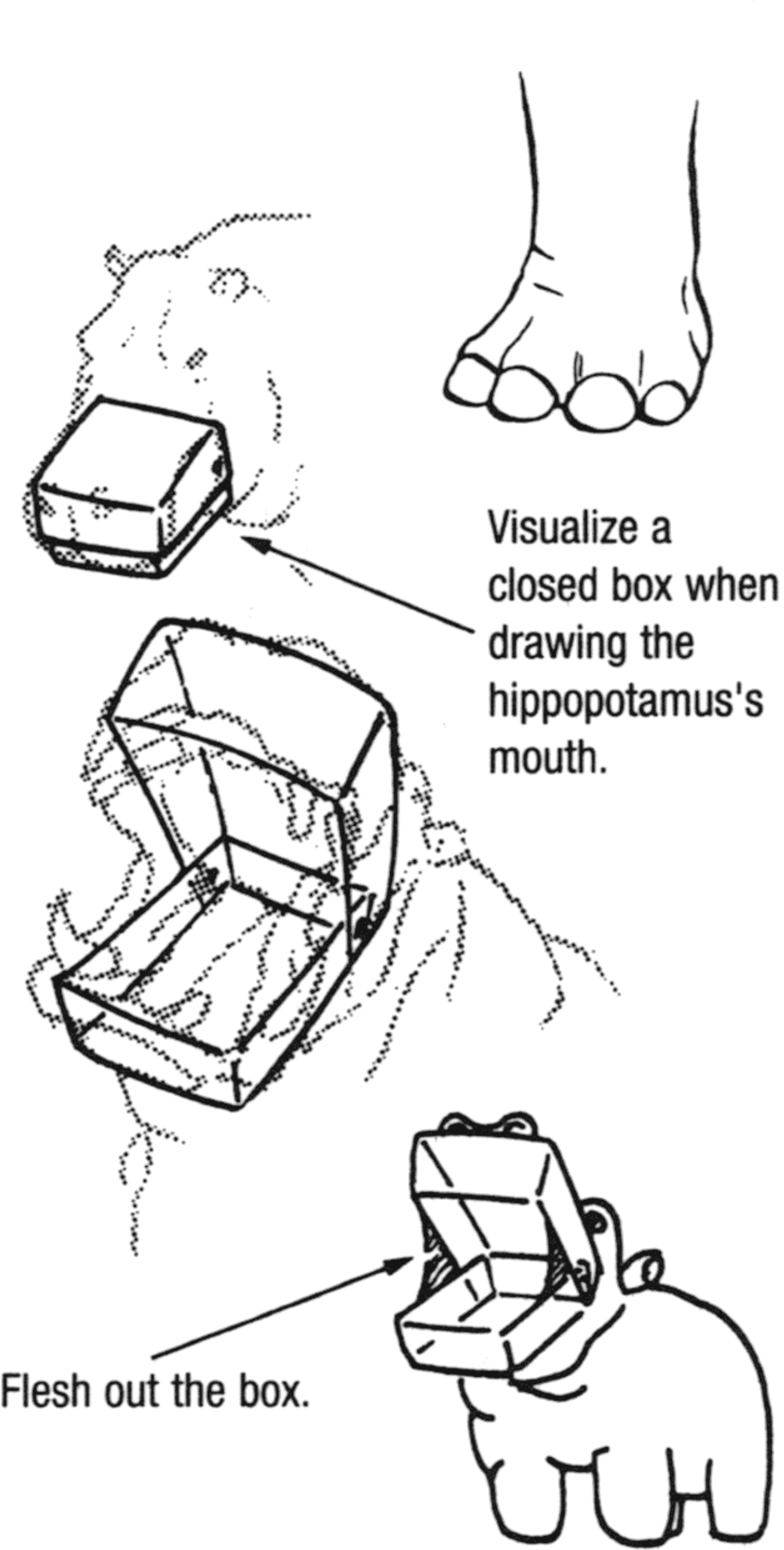
Long eyelashes

This line representing a fold of loose skin is distinctive to the giraffe.

Cloven hoof

Sagging skin

Hippos

The mouth comprises half of the hippopotamus's face.

2

1

The feet are spaced approximately 1.5 feet apart.

Visualize a closed box when drawing the hippopotamus's mouth.

Flesh out the box.

Elephants

The elephant's head is essentially a vertical ellipse whether viewing it from the side or straight on. I recommend drawing the Asian elephant's ears about half the size of the head.

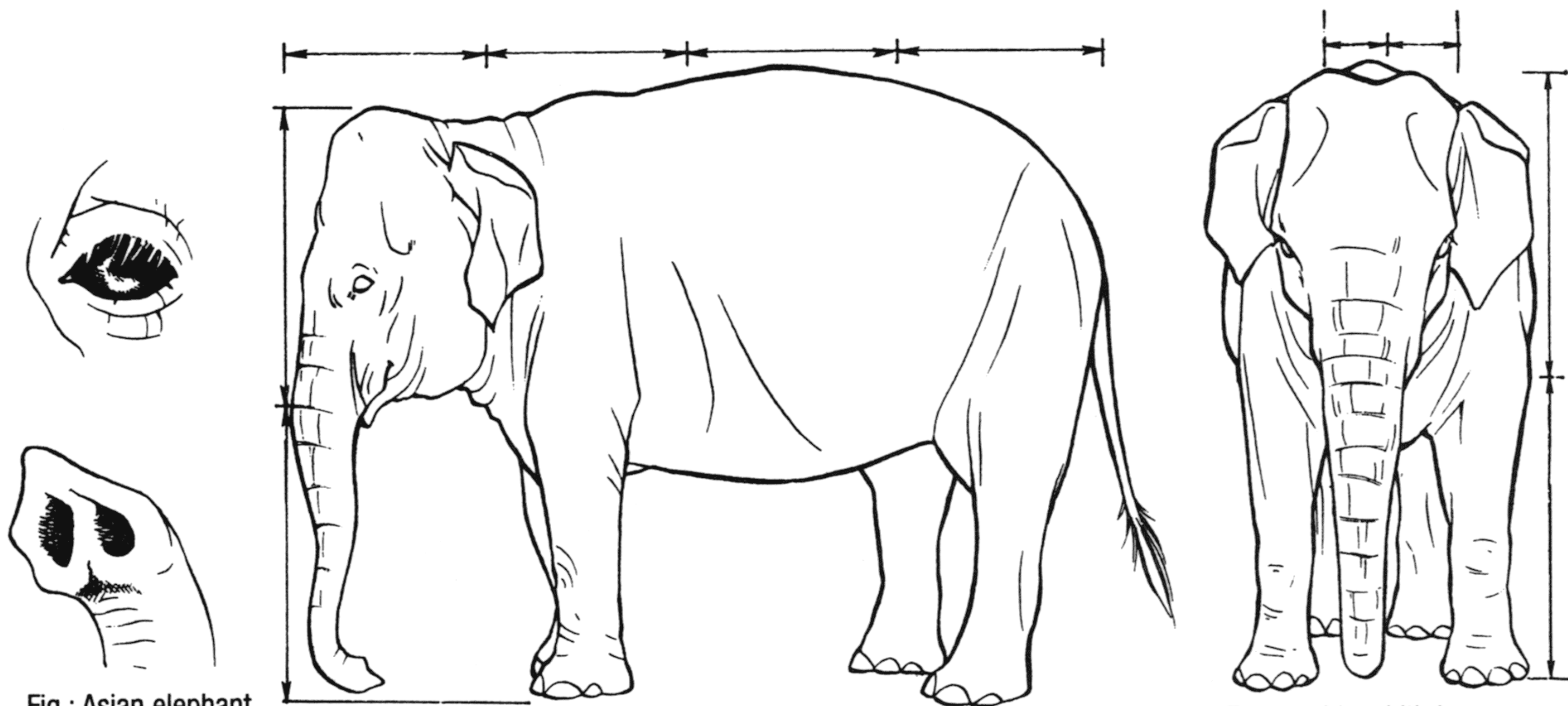
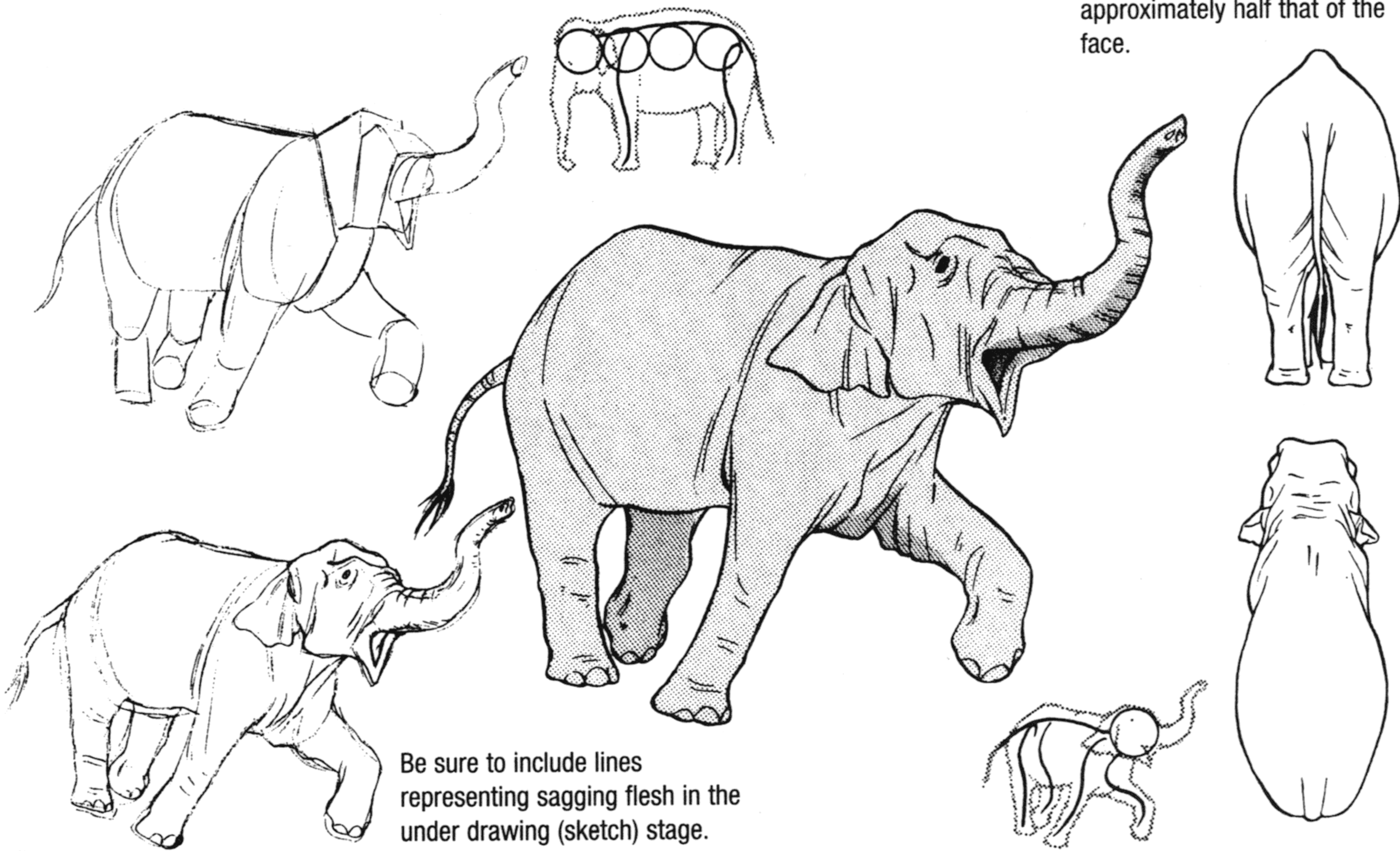
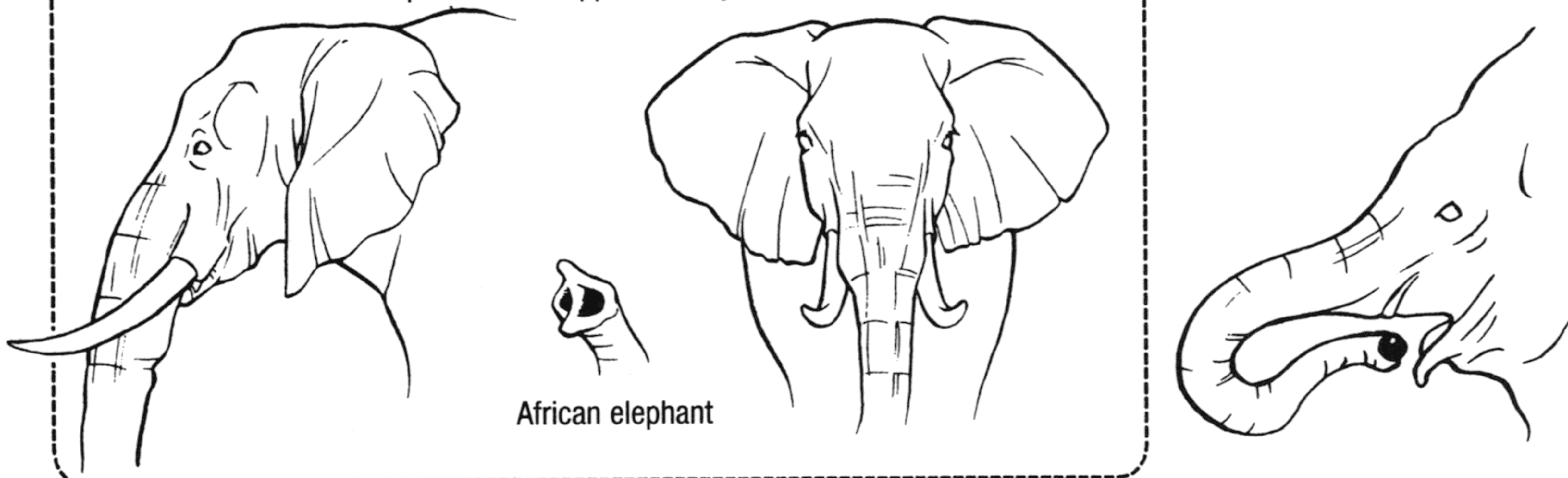



Fig.: Asian elephant

The trunk's width is approximately half that of the face.

Be sure to include lines representing sagging flesh in the under drawing (sketch) stage.

African Elephants

A distinguishing feature of the species, draw the African elephant's ears approximately the same size as the head.

African elephant

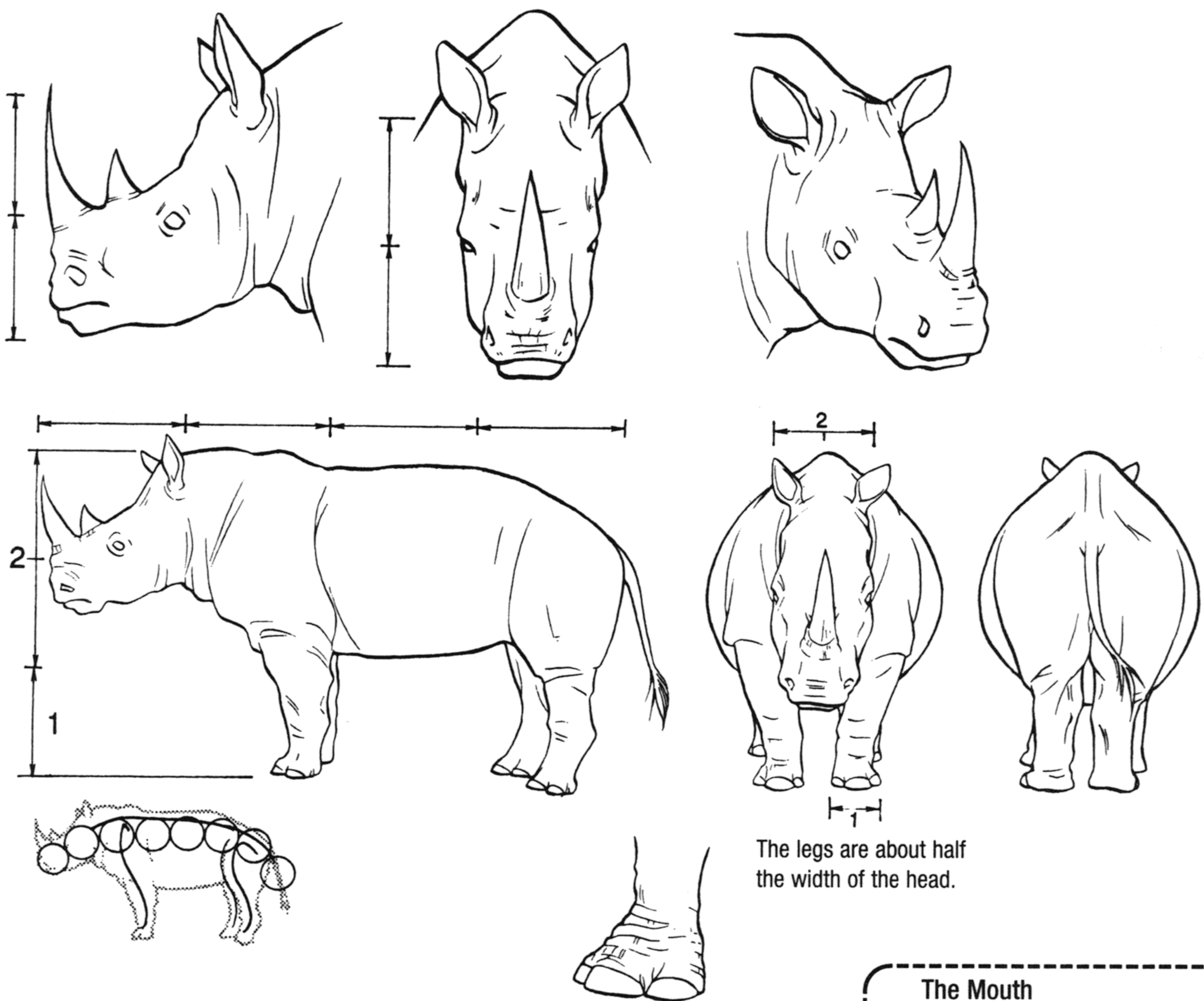
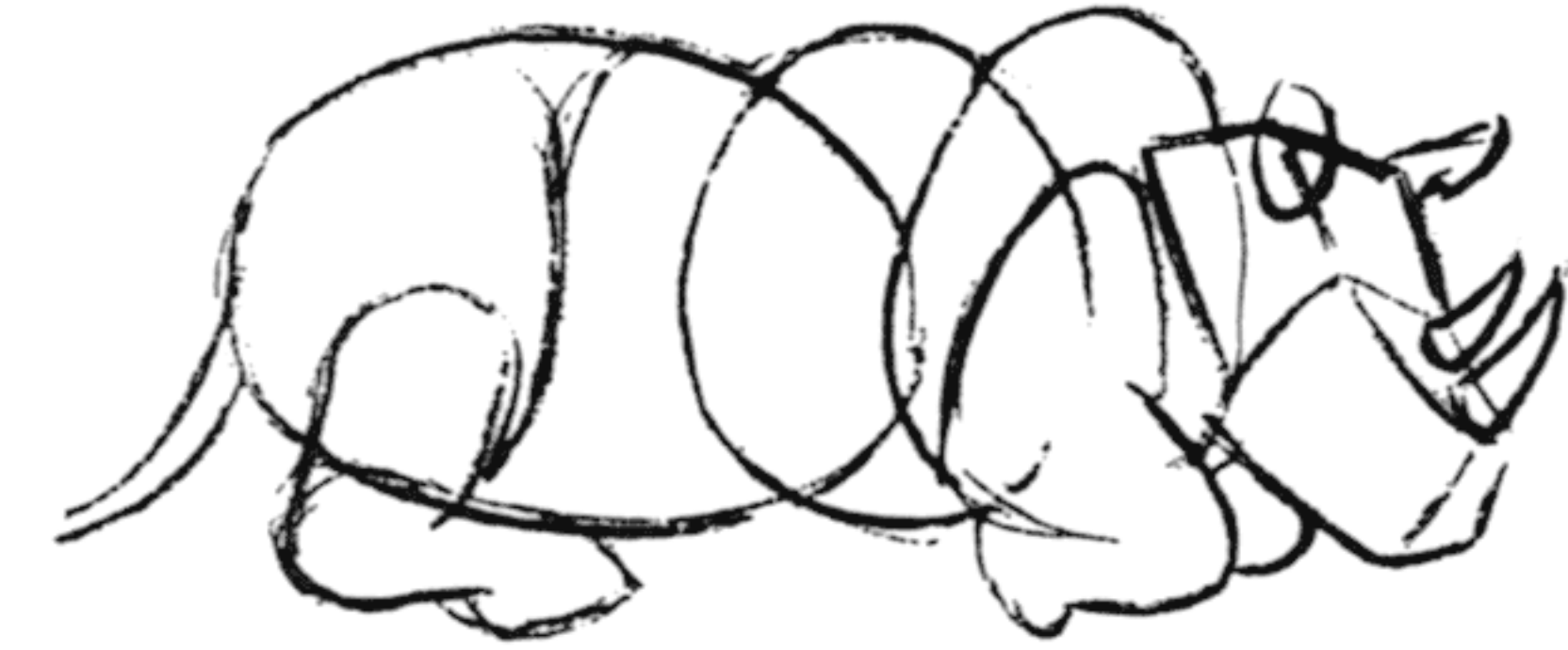
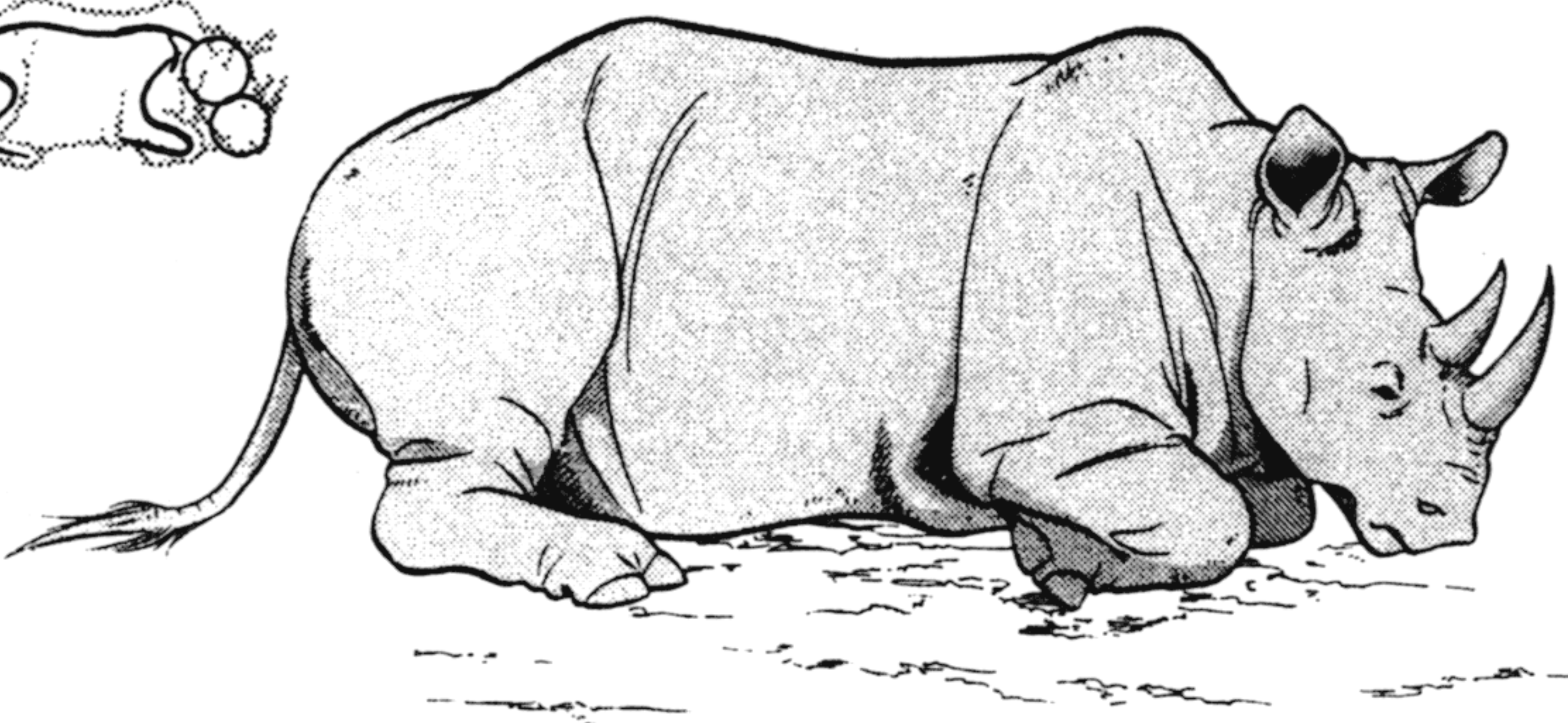
Rhinoceroses

The rhinoceros should be drawn with a rectangular face and conical (trumpet-shaped) ears. The black rhino and white rhino closely resemble one another, but may be distinguished using the mouth.

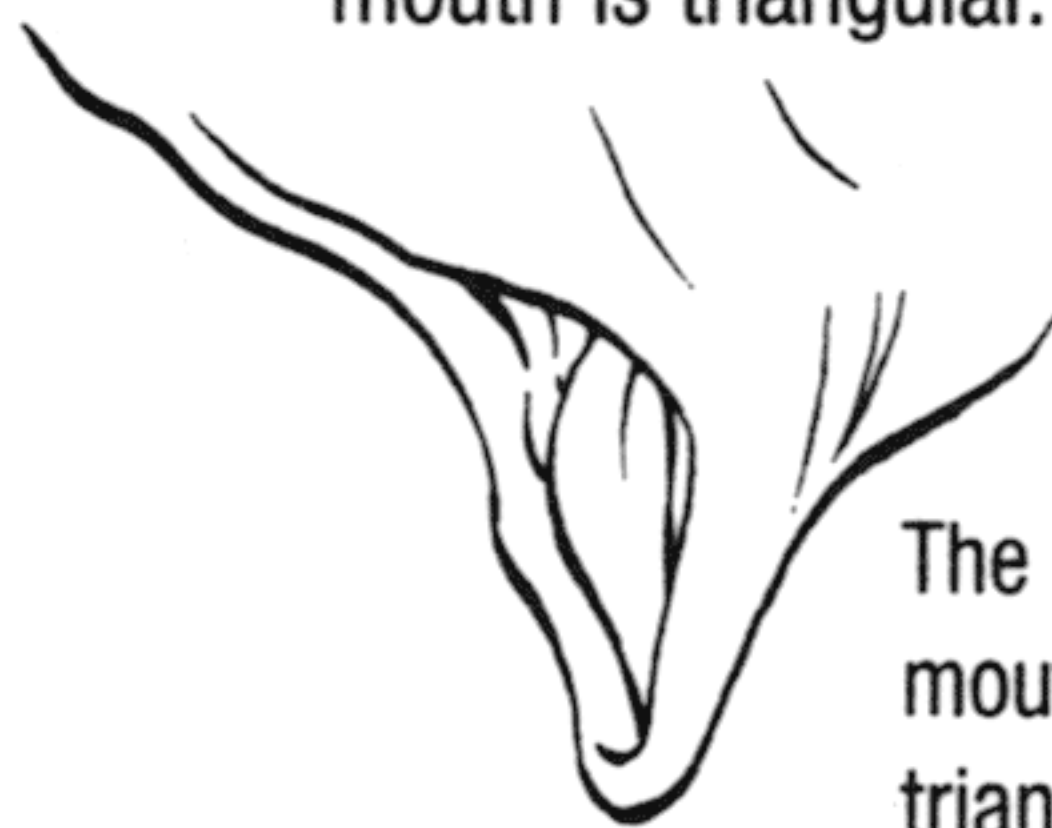
2

2

1

1

The legs are about half the width of the head.

In the layout sketch, we see that the protruding shoulders are a distinctive trait. Use circles to define the shoulders, abdomen, and rump.

The Mouth

The white rhinoceros's mouth is shaped like a horizontal rectangle.

The black rhinoceros's mouth is triangular.

The elephant's mouth is also triangular in form.

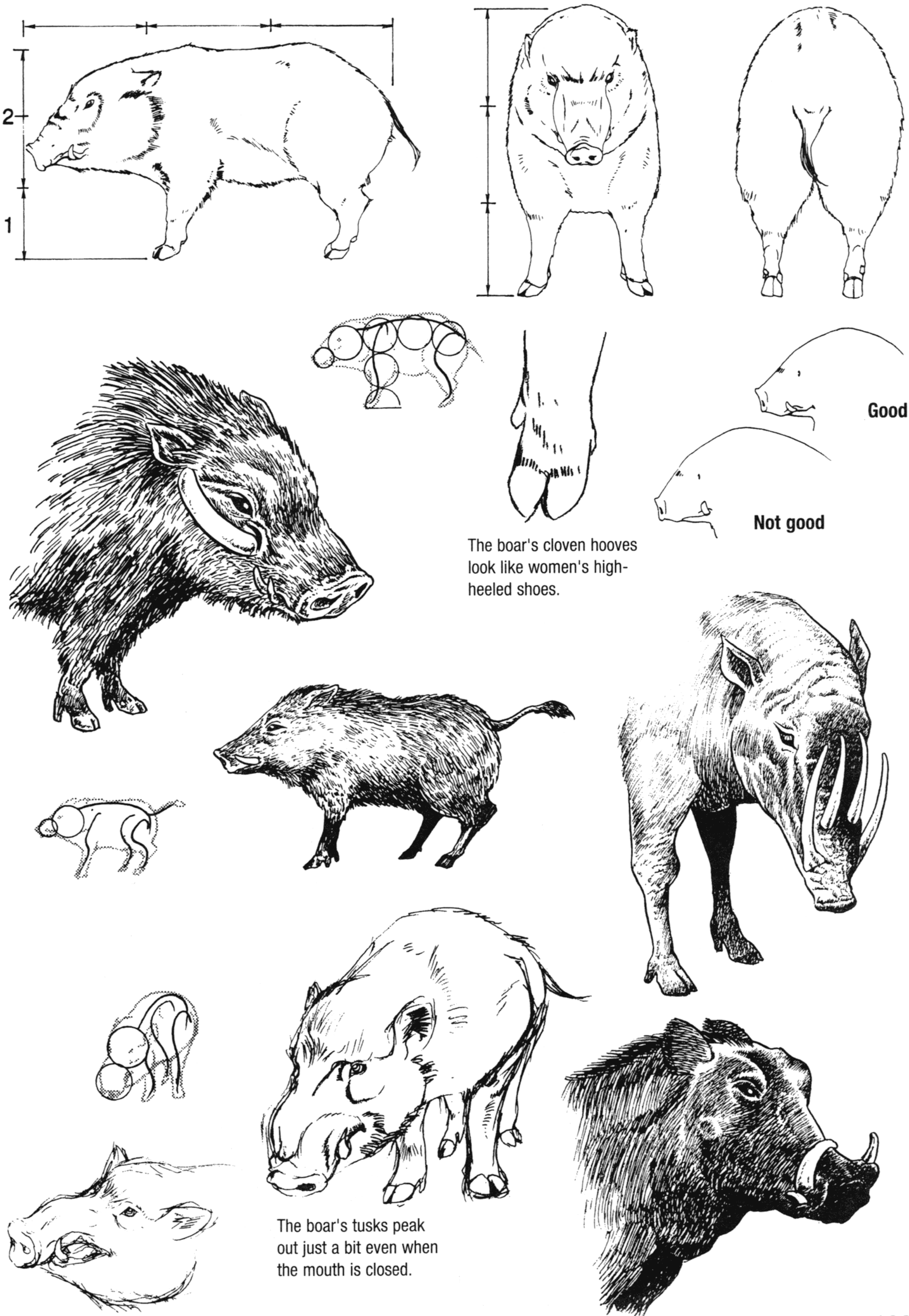
Wild Boar

The tusks of some wild boars puncture their mouths. Boar tusks do not typically grow from the corner of their mouths, but rather close to the snout.

2

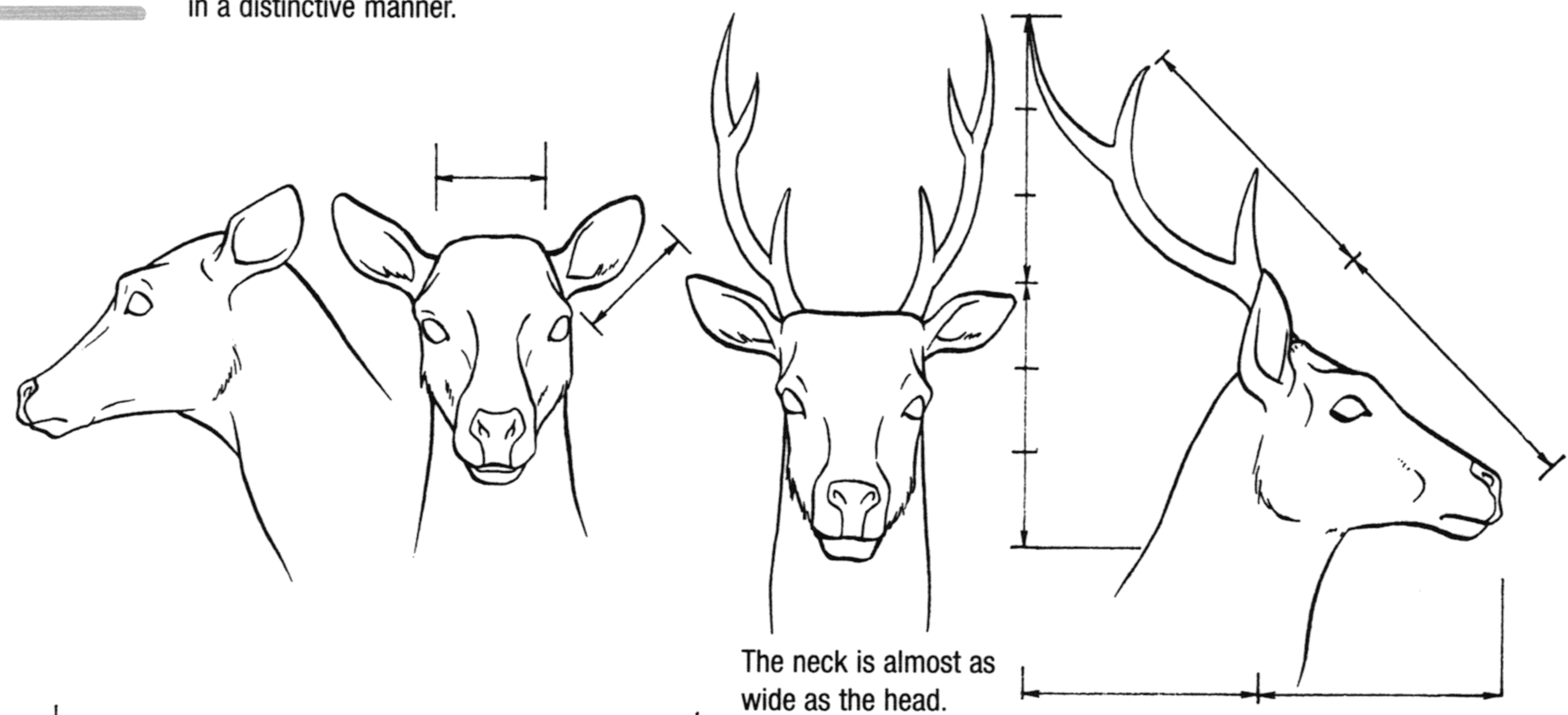
1

Good

Not good

The boar's cloven hooves look like women's high-heeled shoes.

The boar's tusks peak out just a bit even when the mouth is closed.

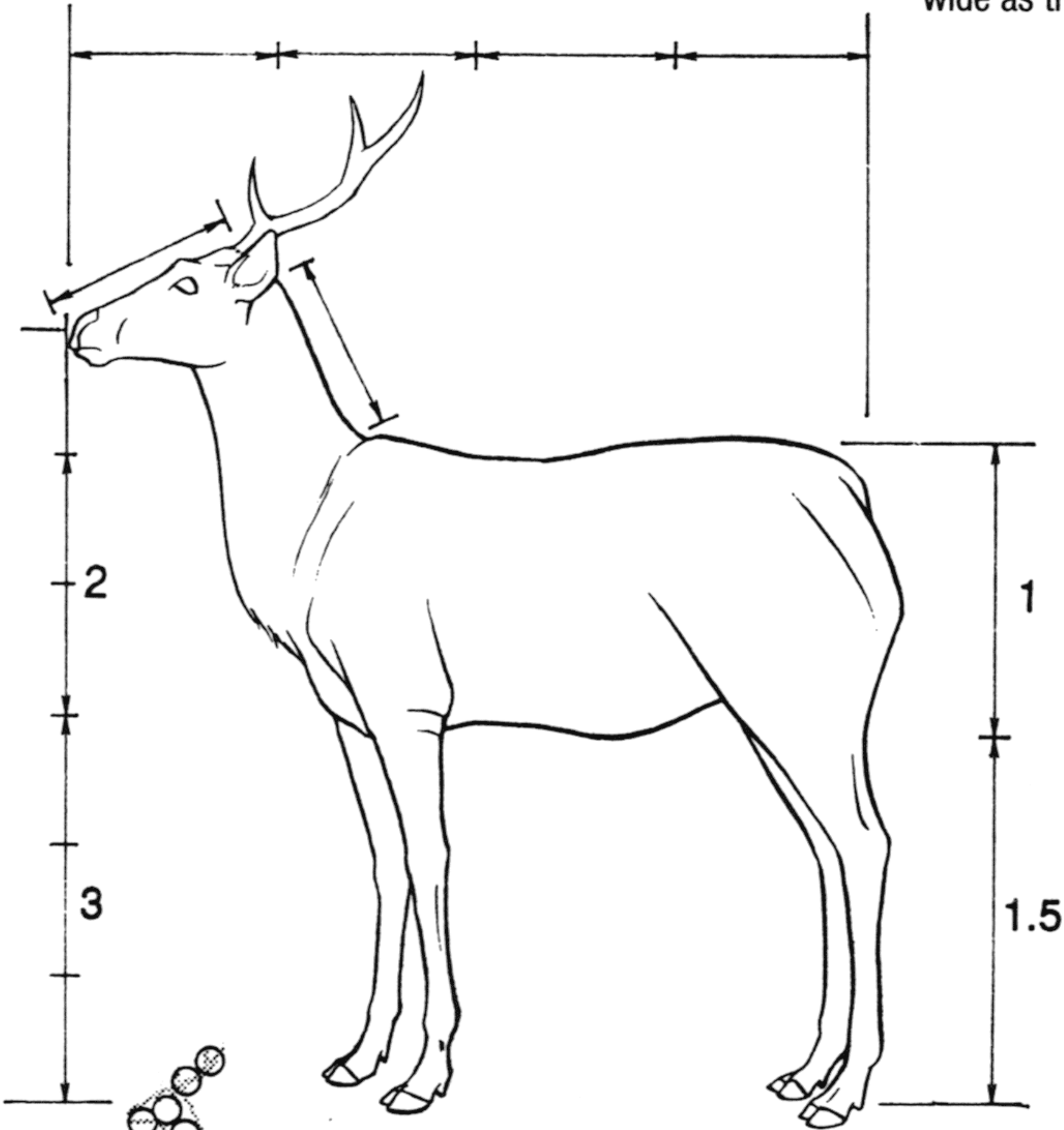
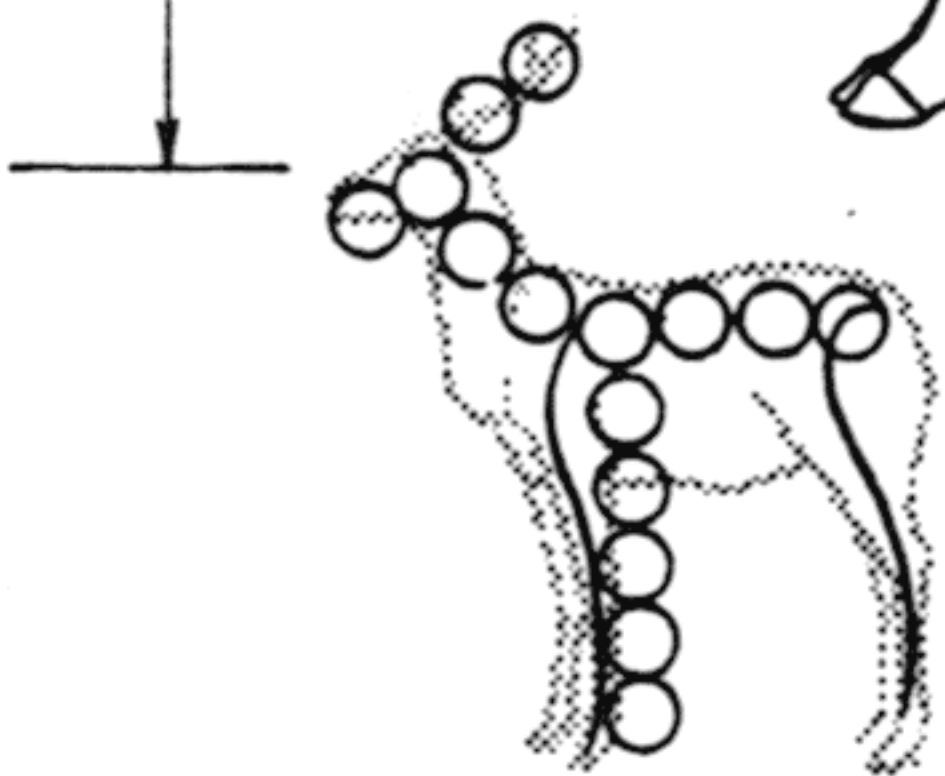
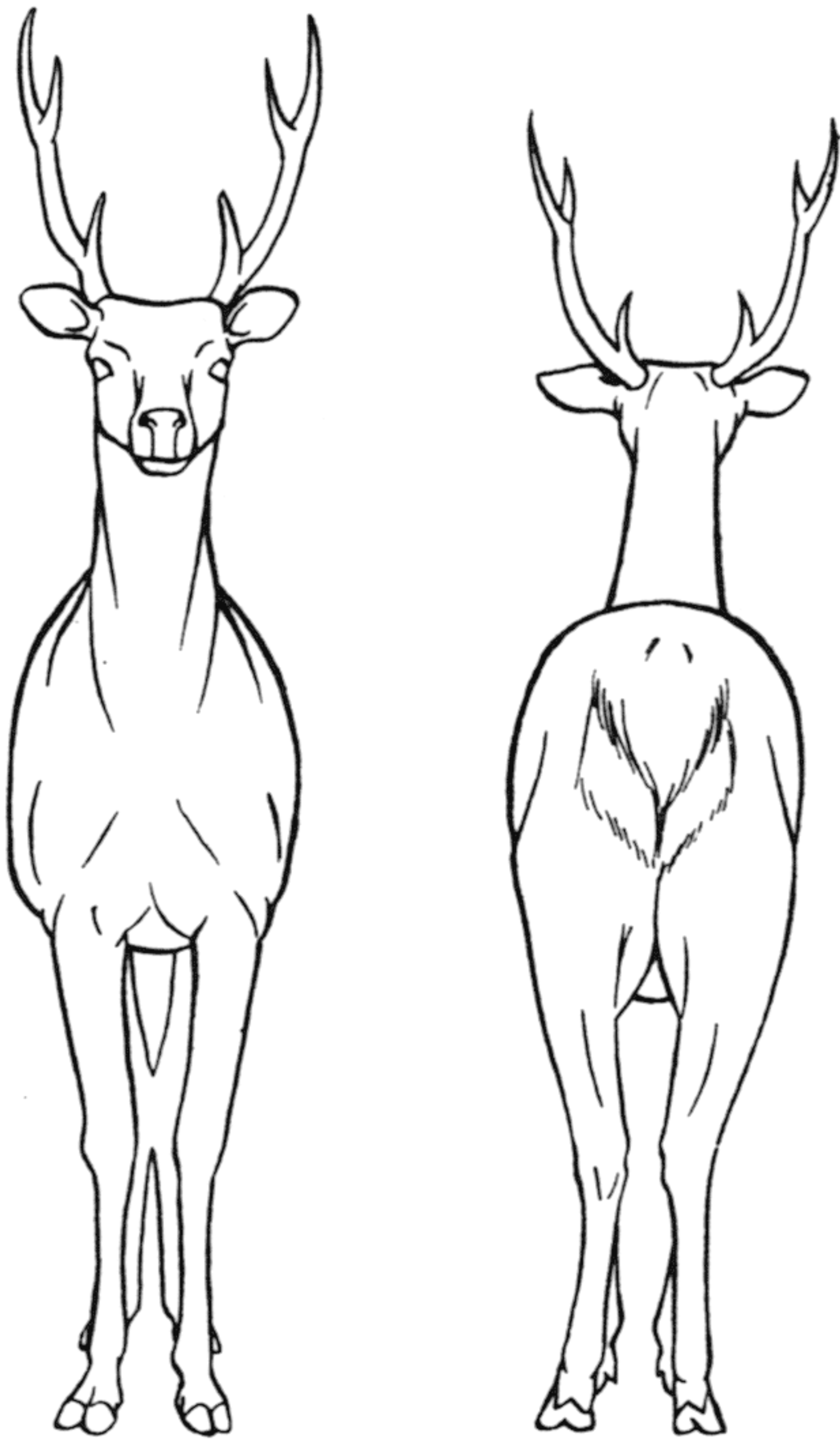
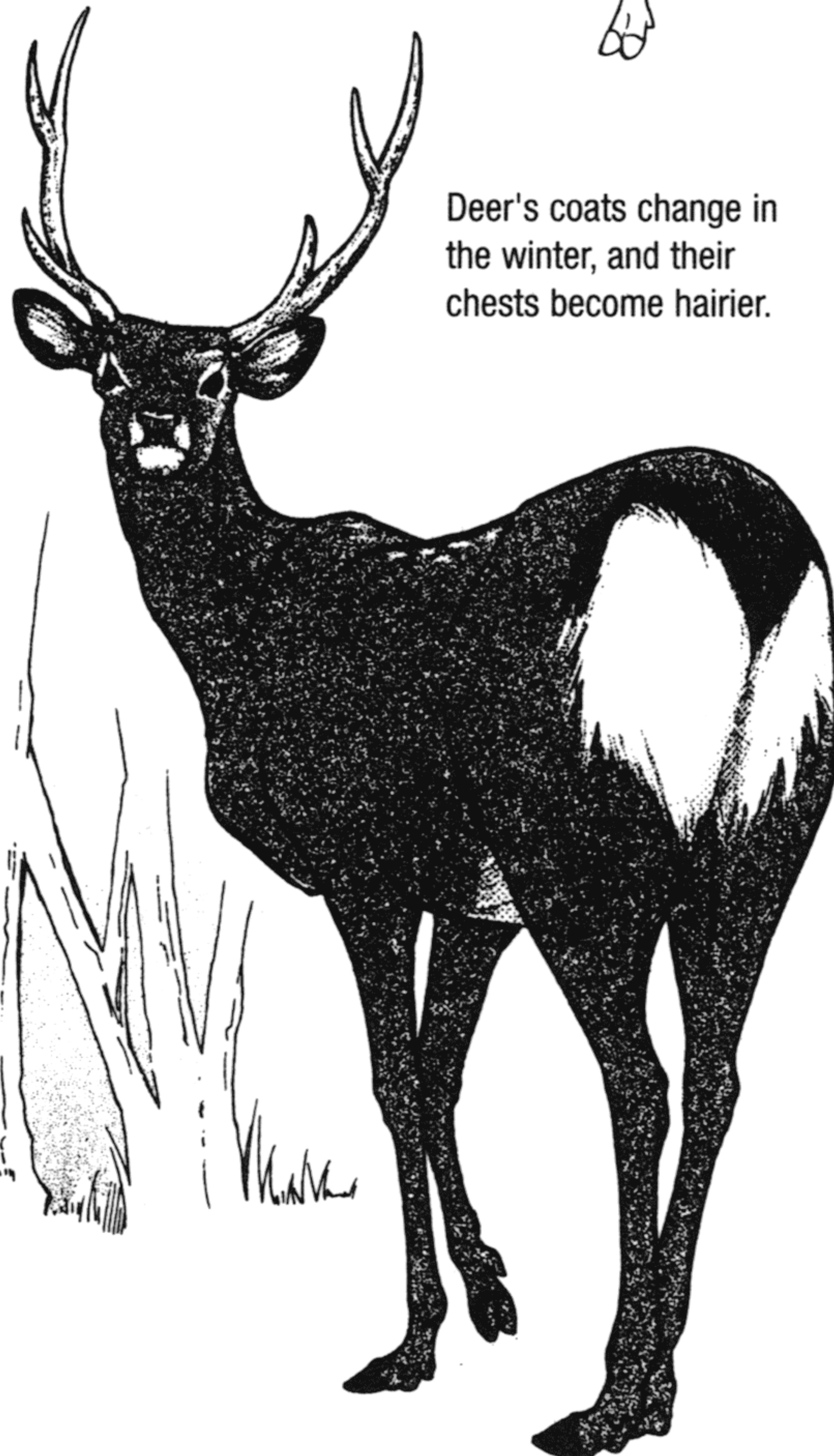
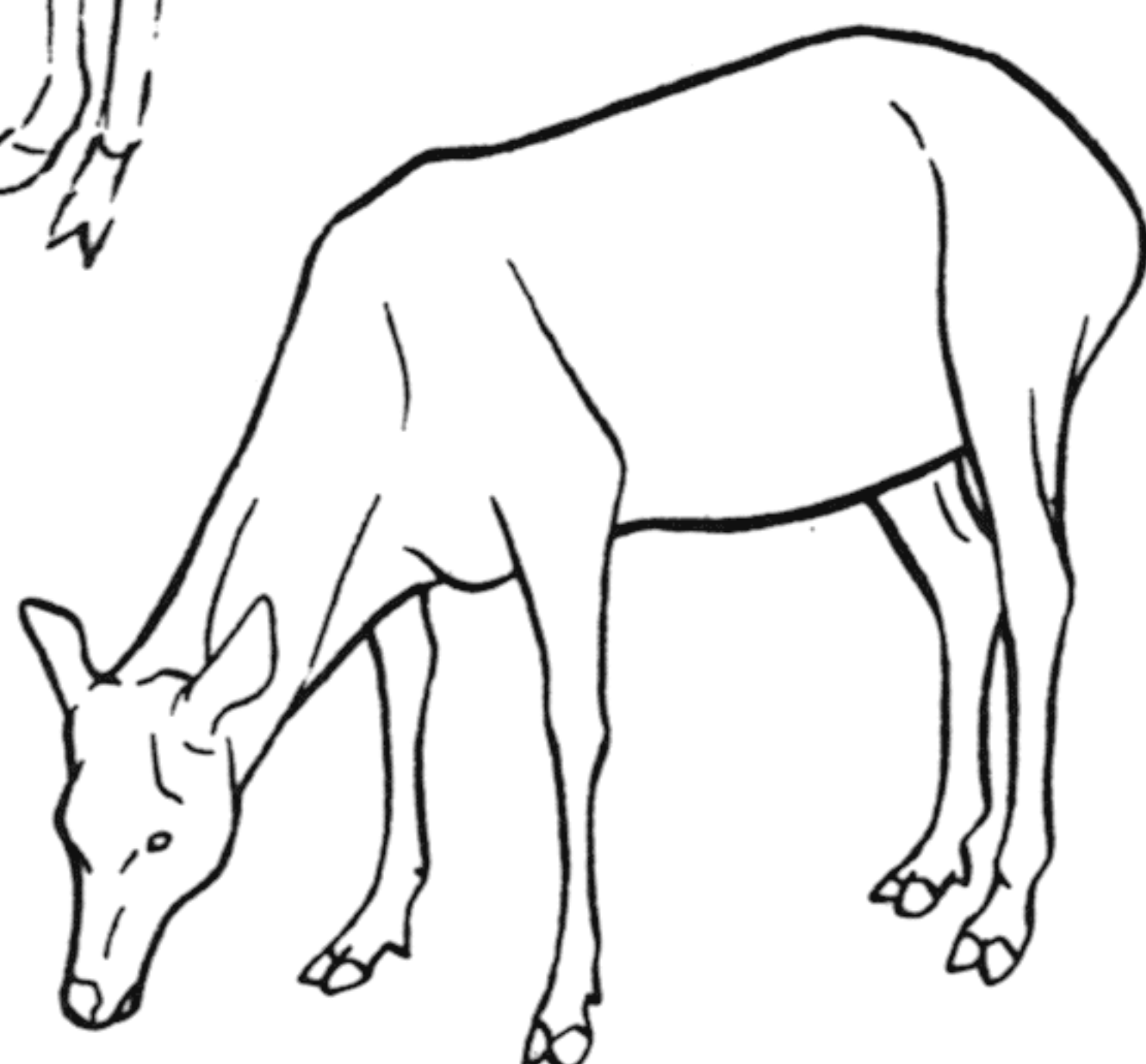
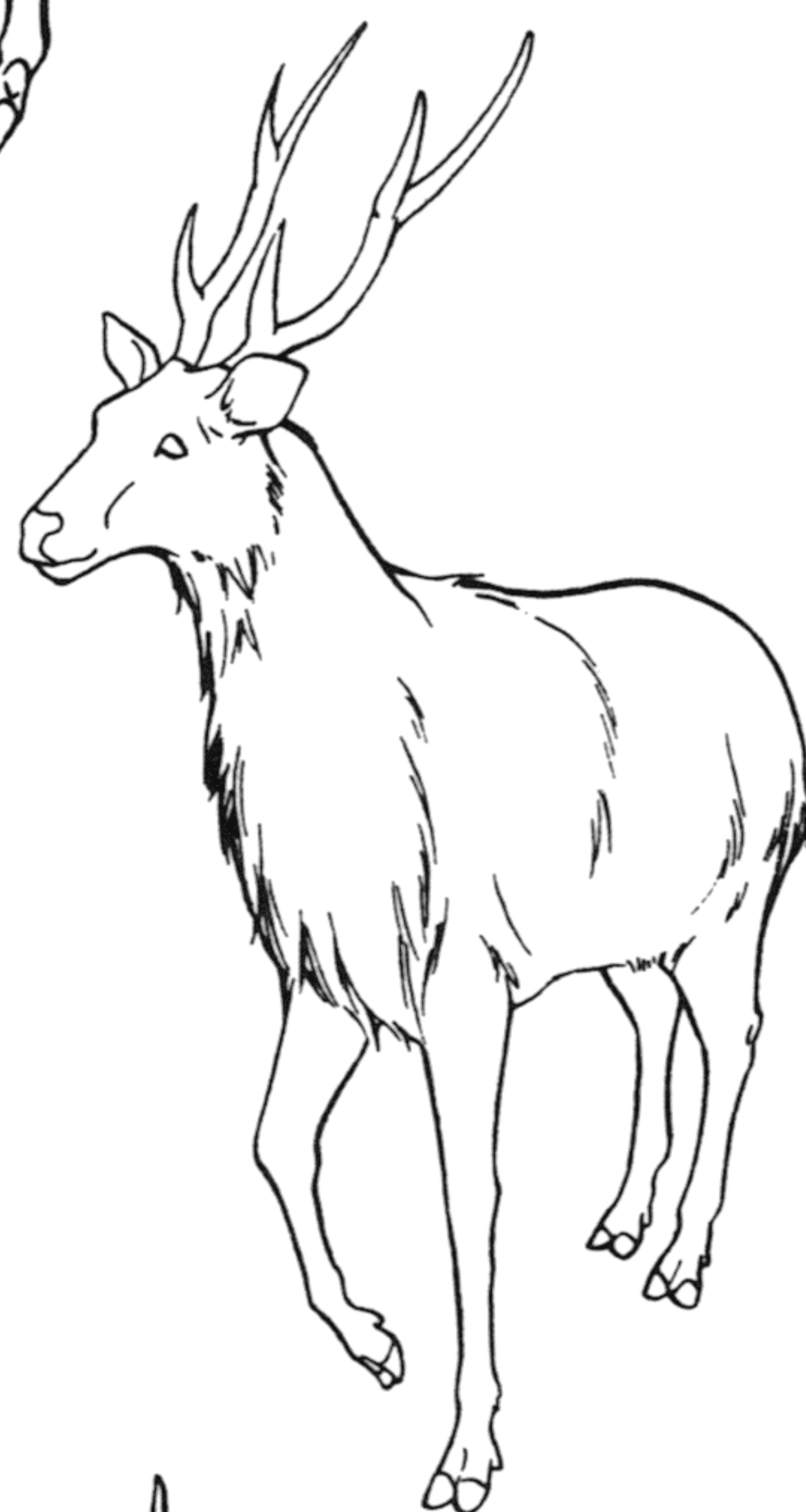
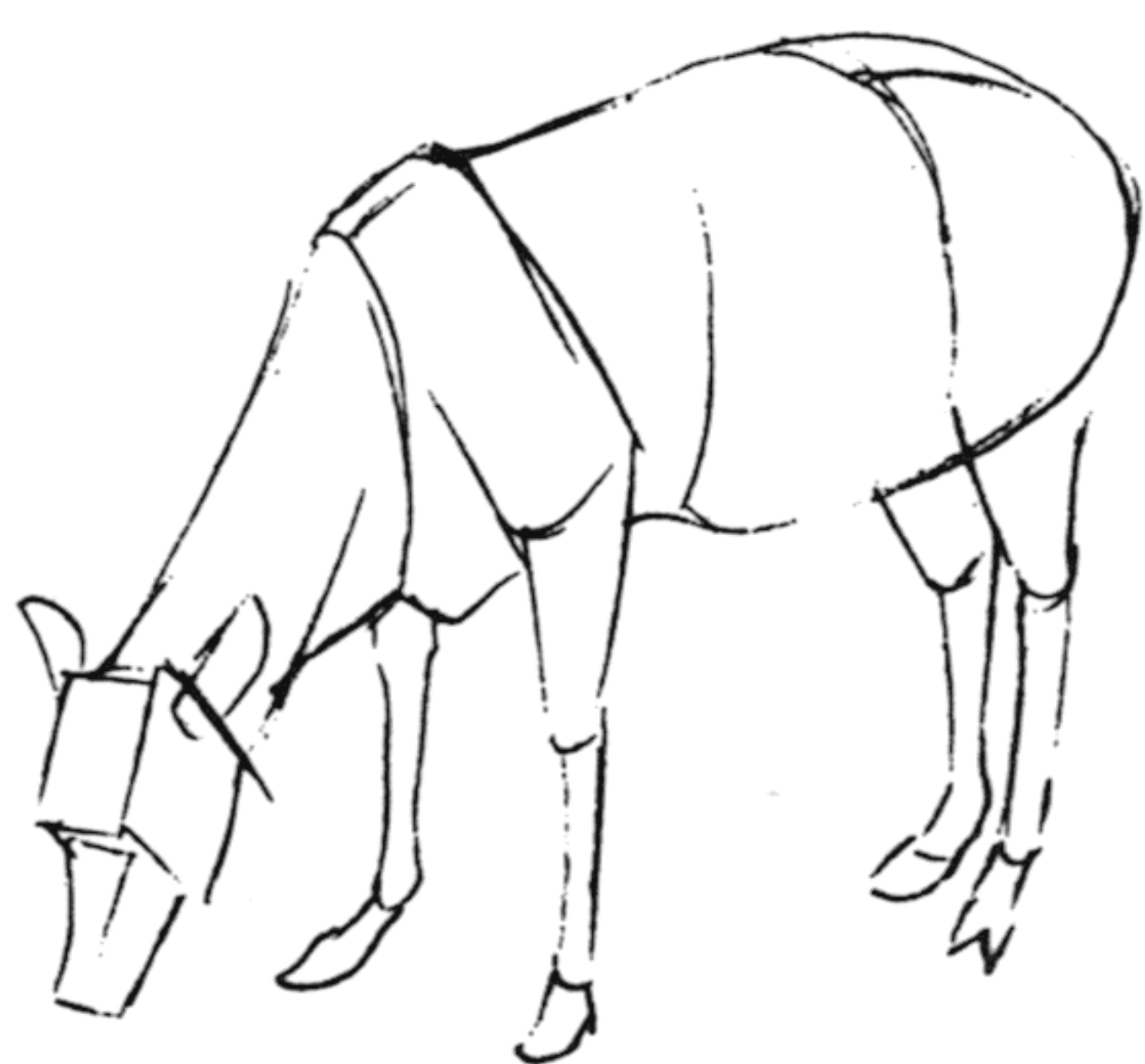
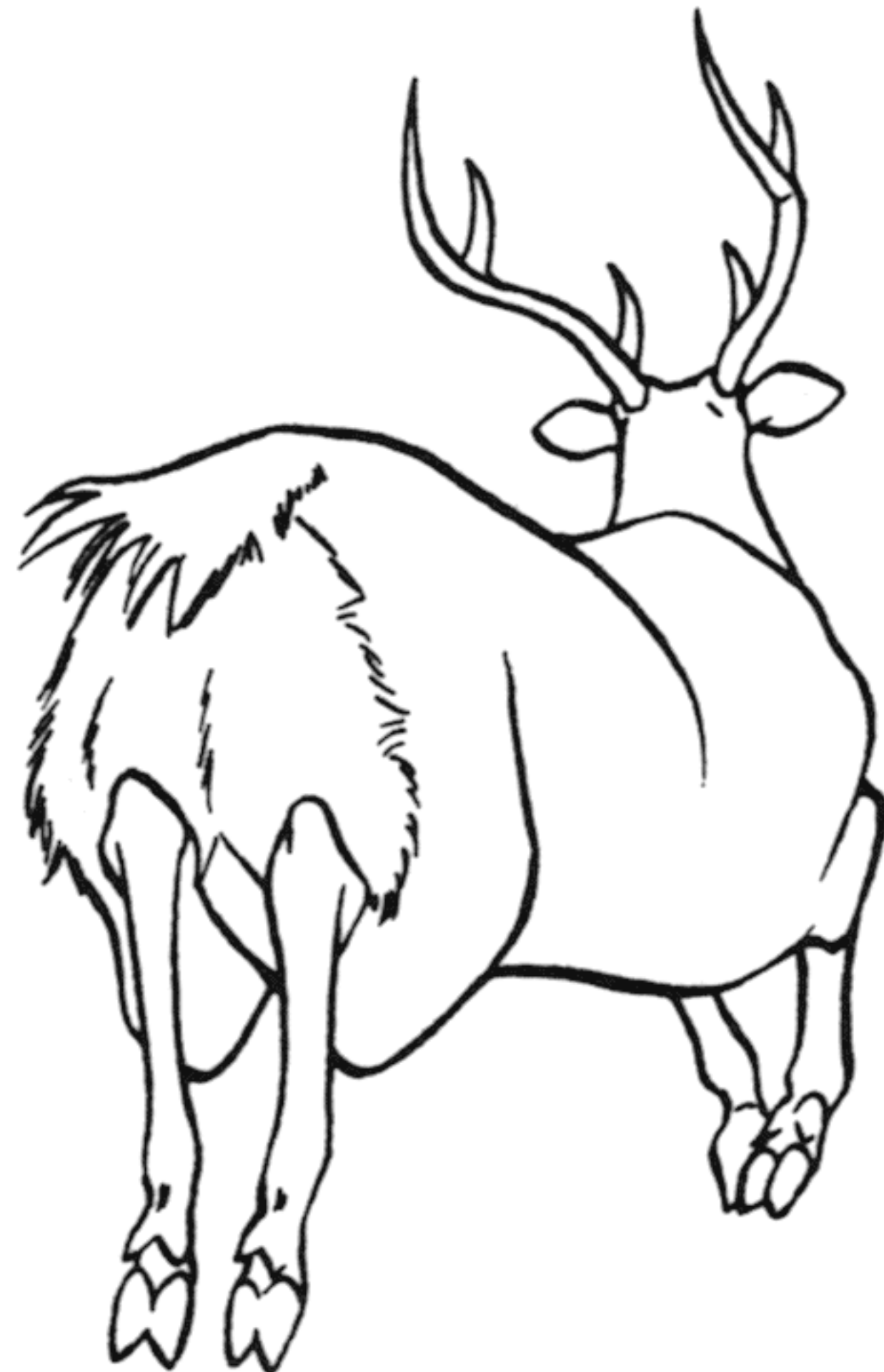
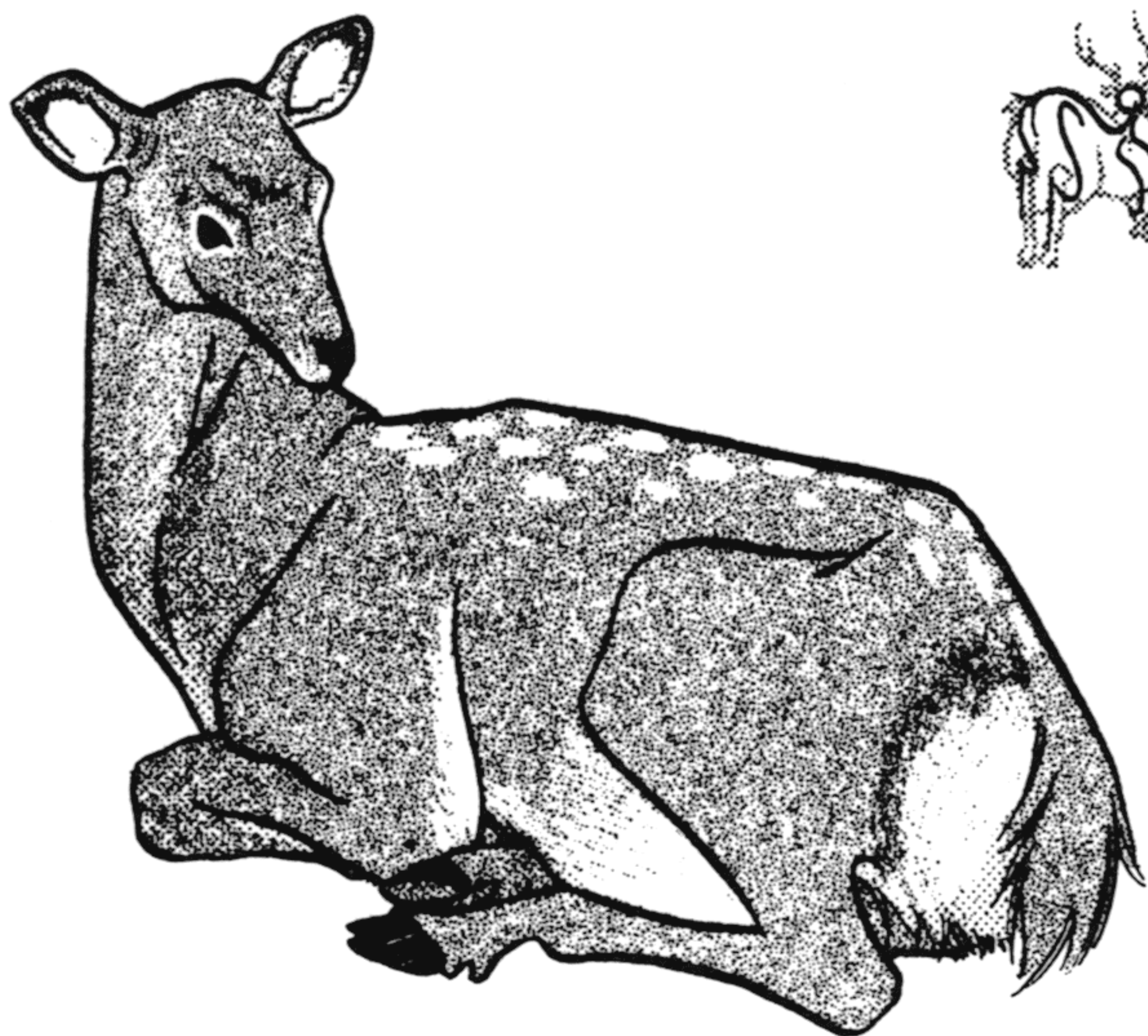
Deer

Deer's ears turn out to the side in a distinctive manner.

The neck is almost as wide as the head.

2

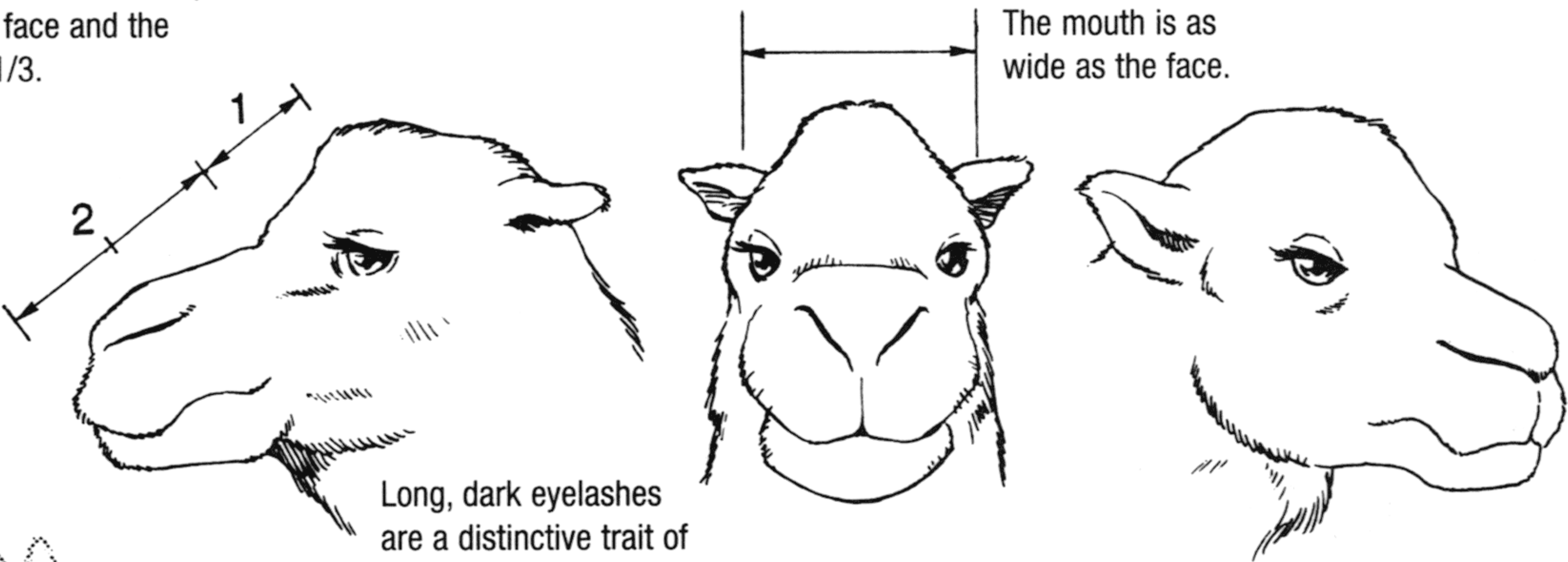
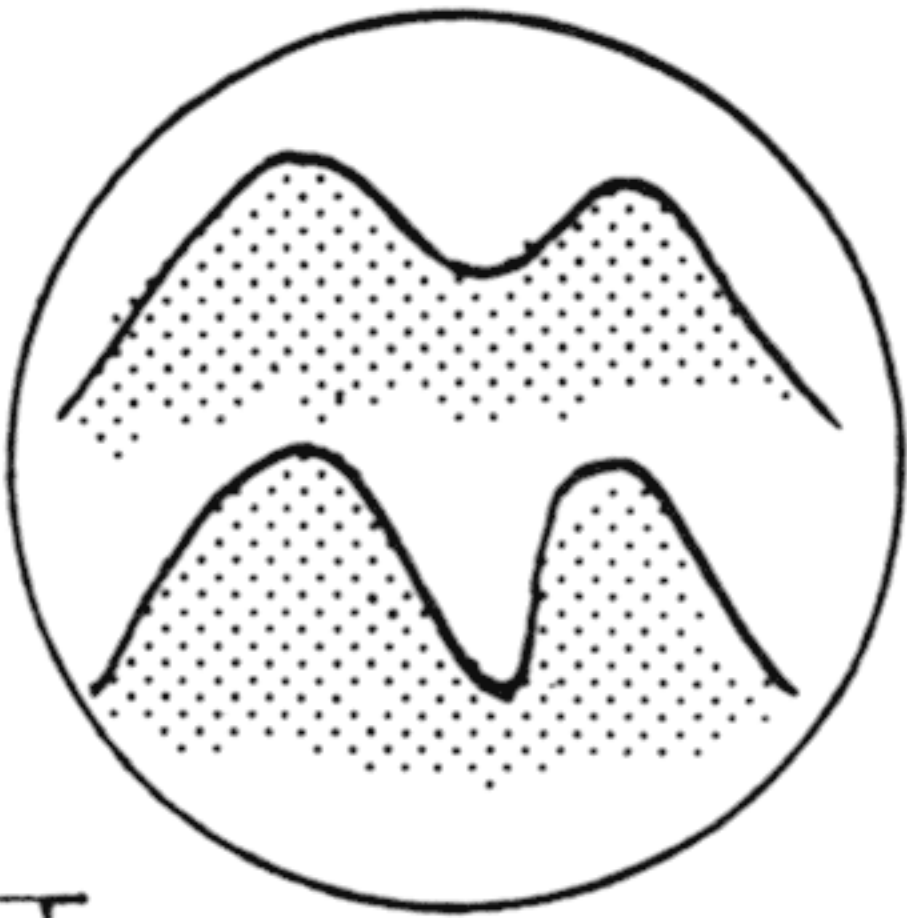
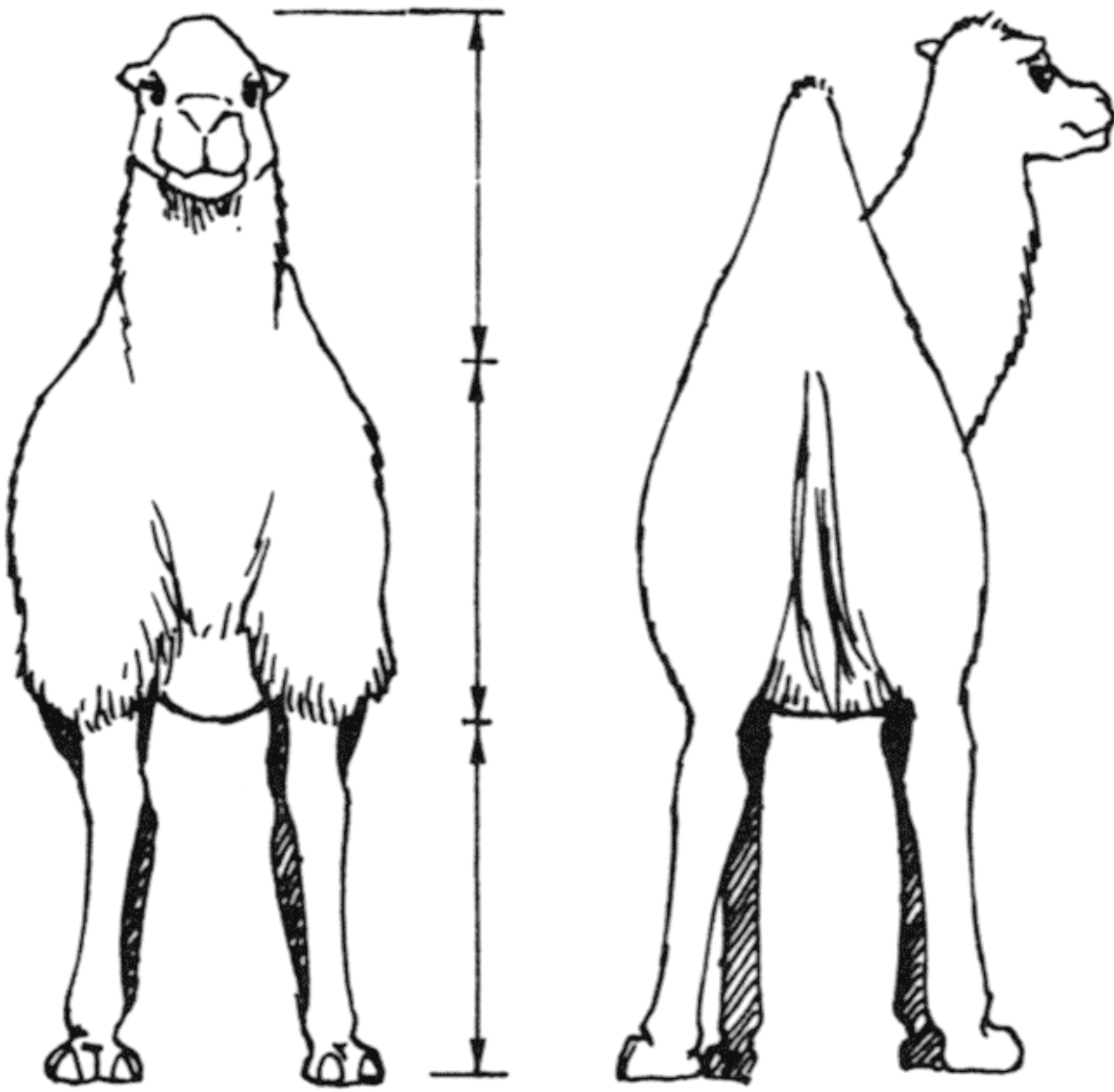
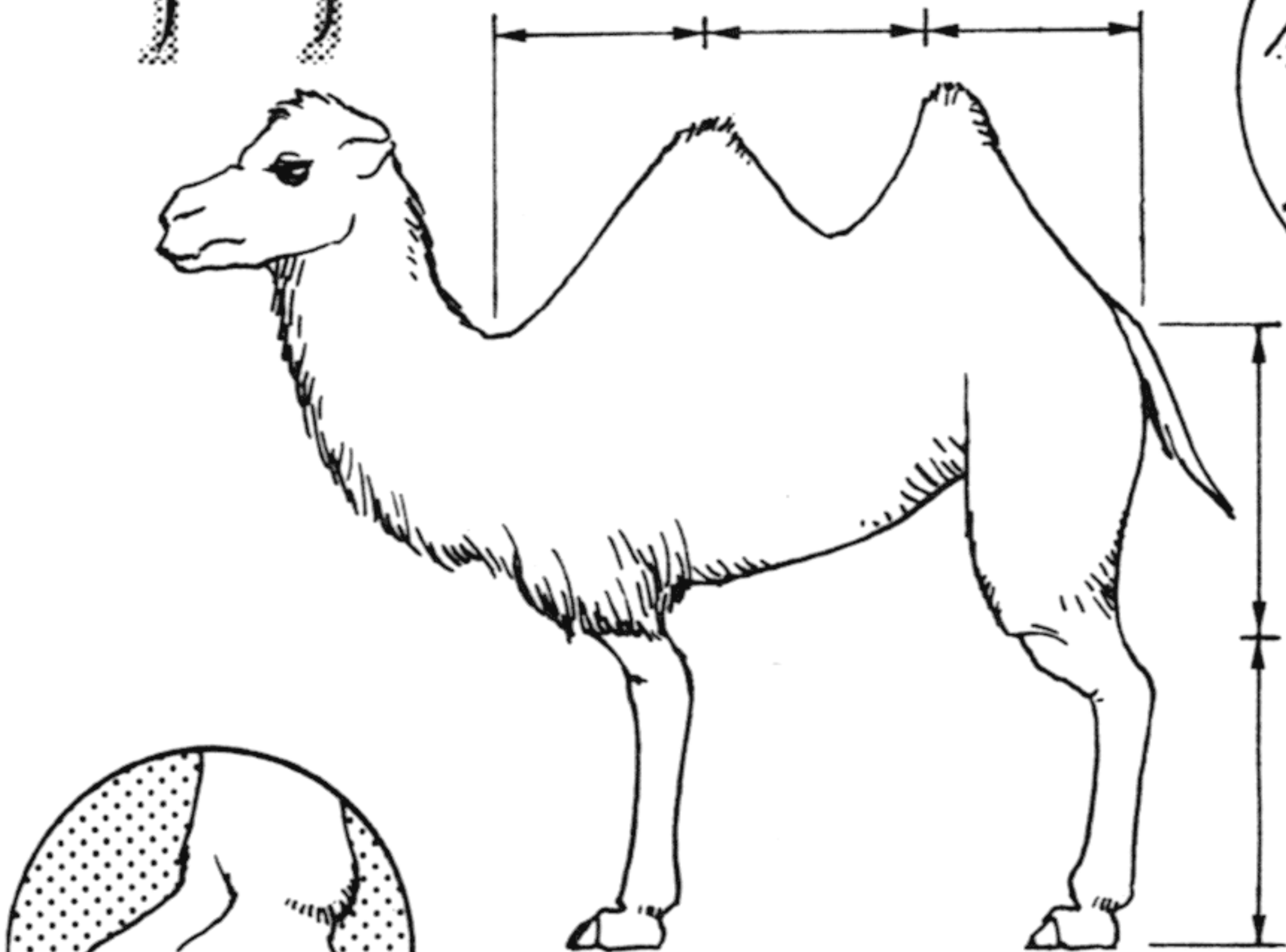
3

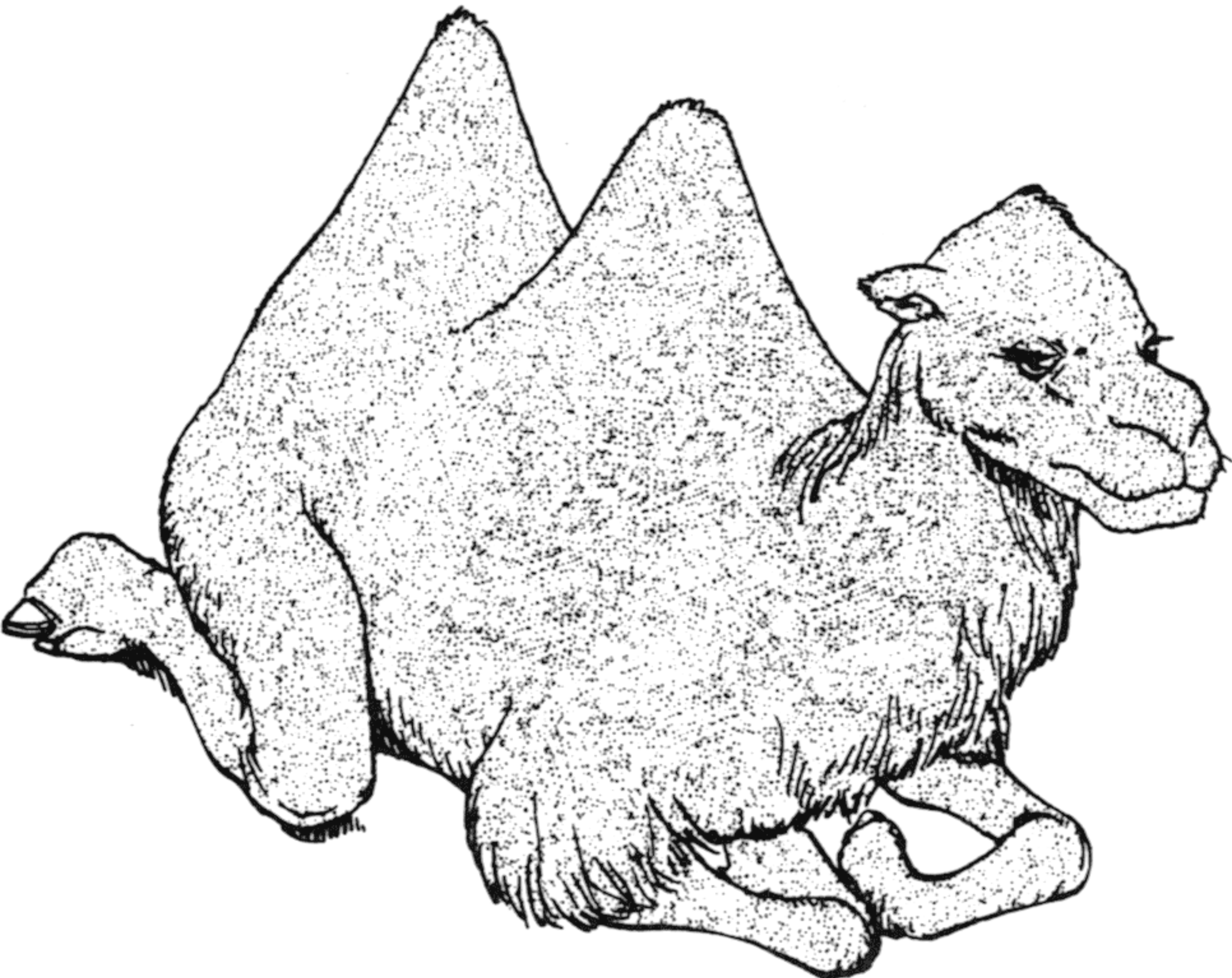
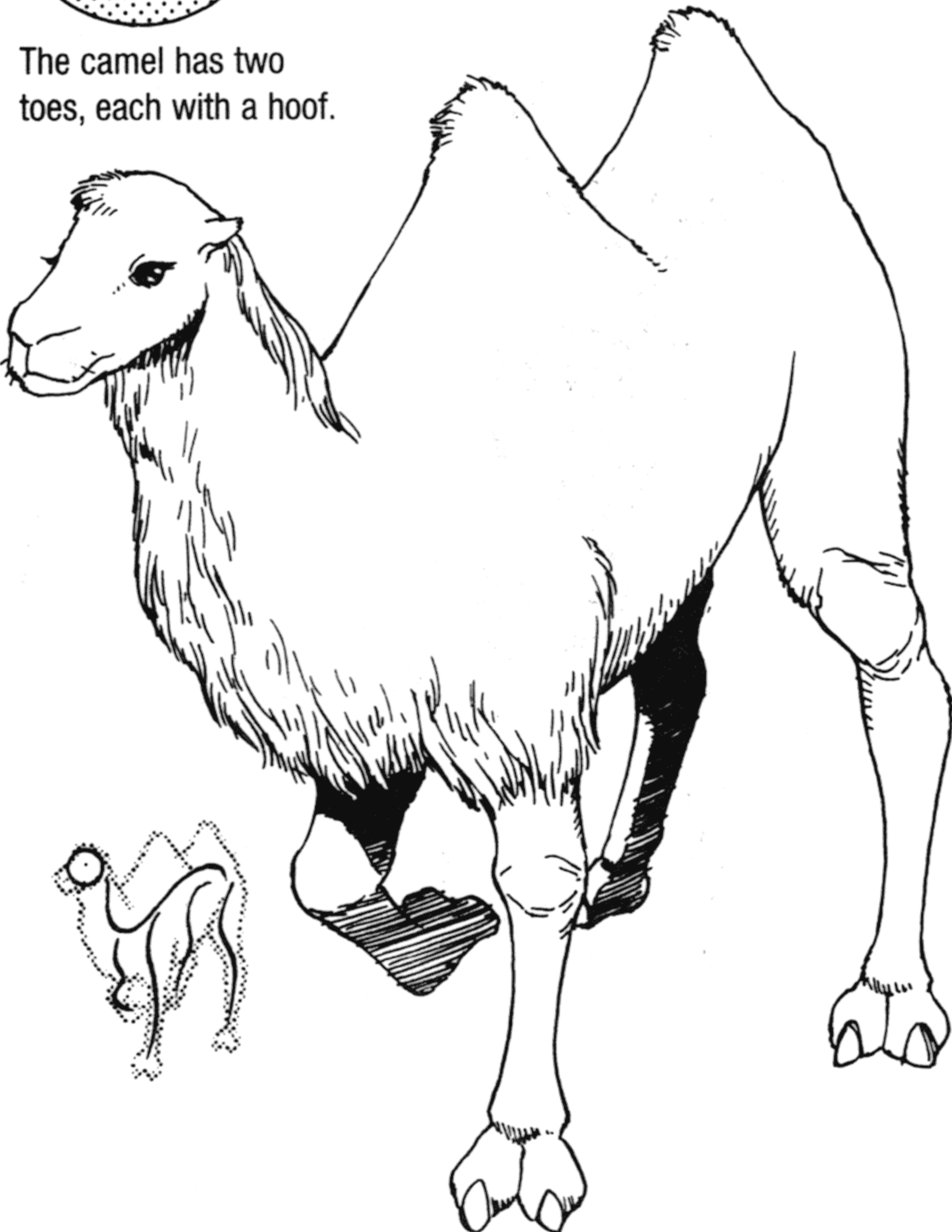
1

1.5

The legs are 1.5 times as long as the trunk is high.

Determine the ears' positions at the layout sketch stage.

Deer's coats change in the winter, and their chests become hairier.

Camel

In profile, the snout occupies 2/3 of the face and the forehead 1/3.

The mouth is as wide as the face.

Long, dark eyelashes are a distinctive trait of the camel.

The camel's humps come in a variety of shapes.

The neck has a wide range of motion.

The camel has two toes, each with a hoof.

Kangaroos

The ears are capable of moving in all directions.

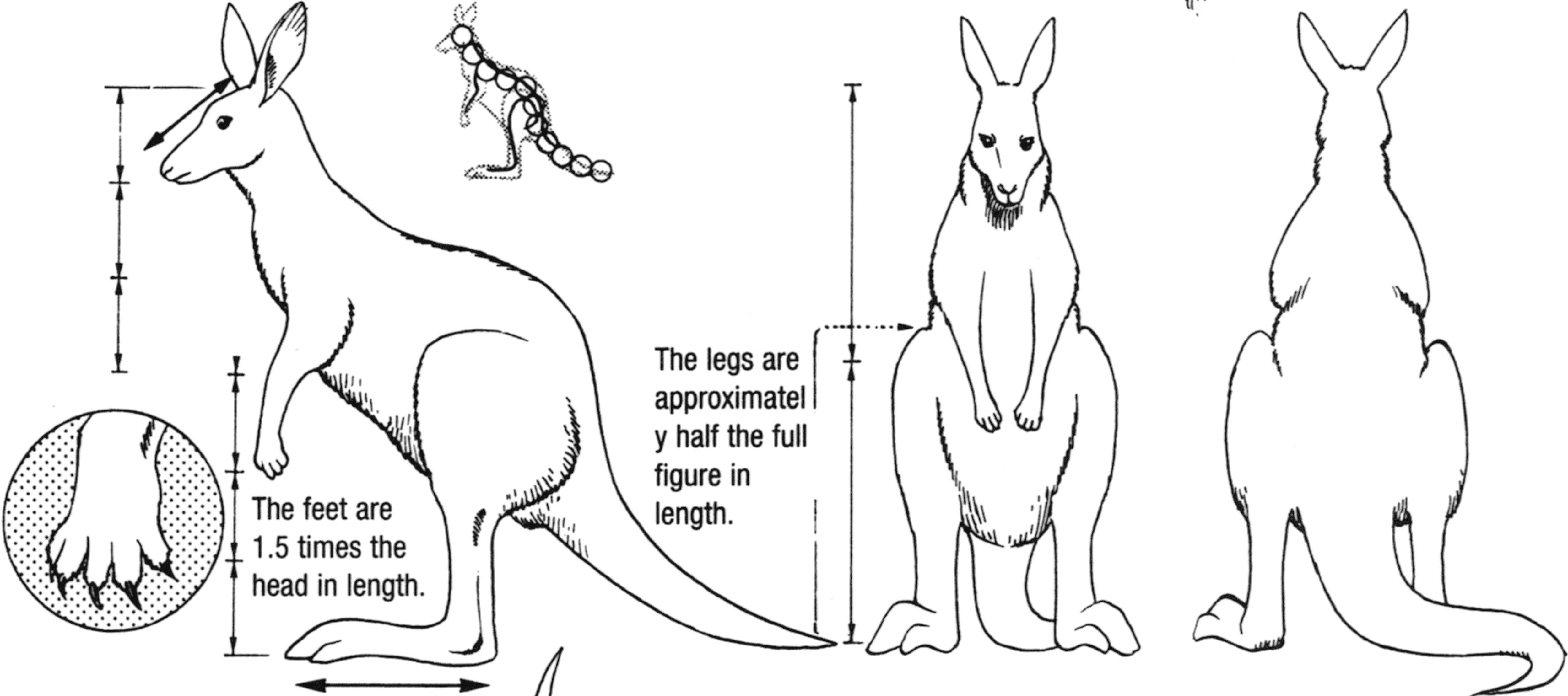
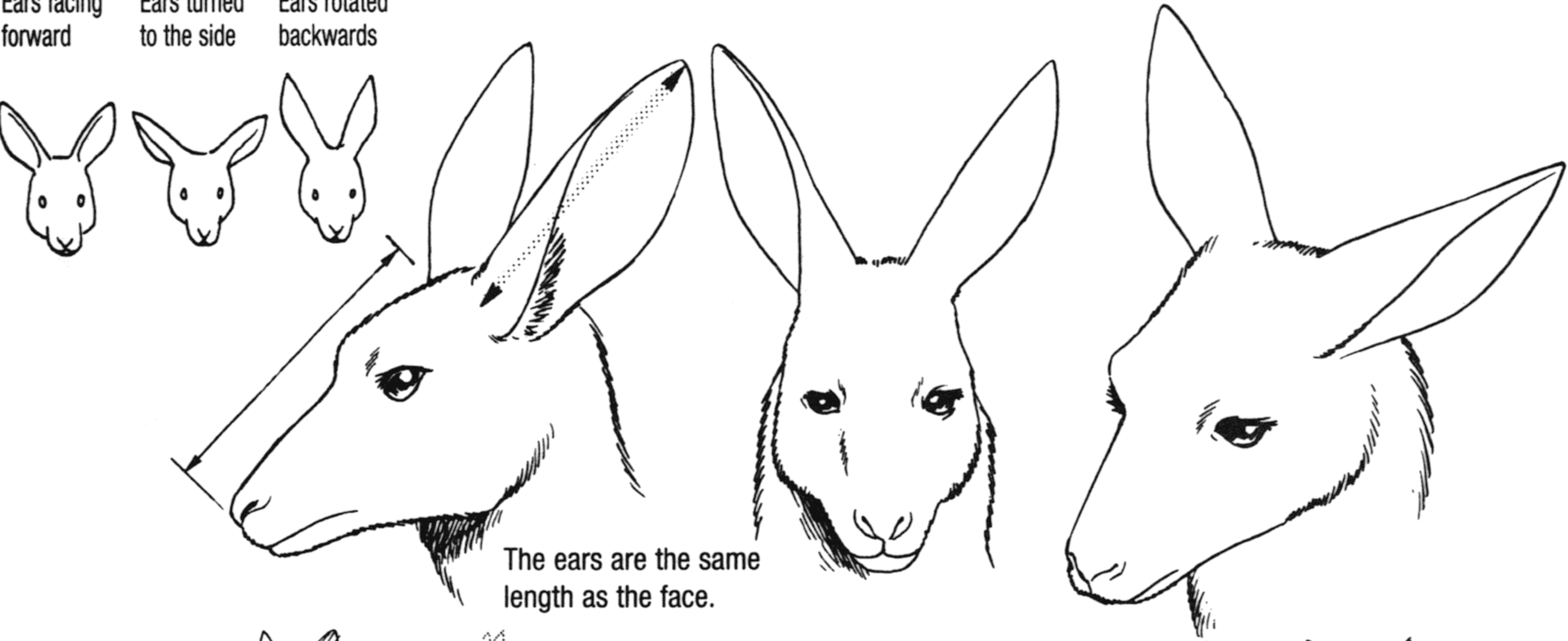
Ears facing forward

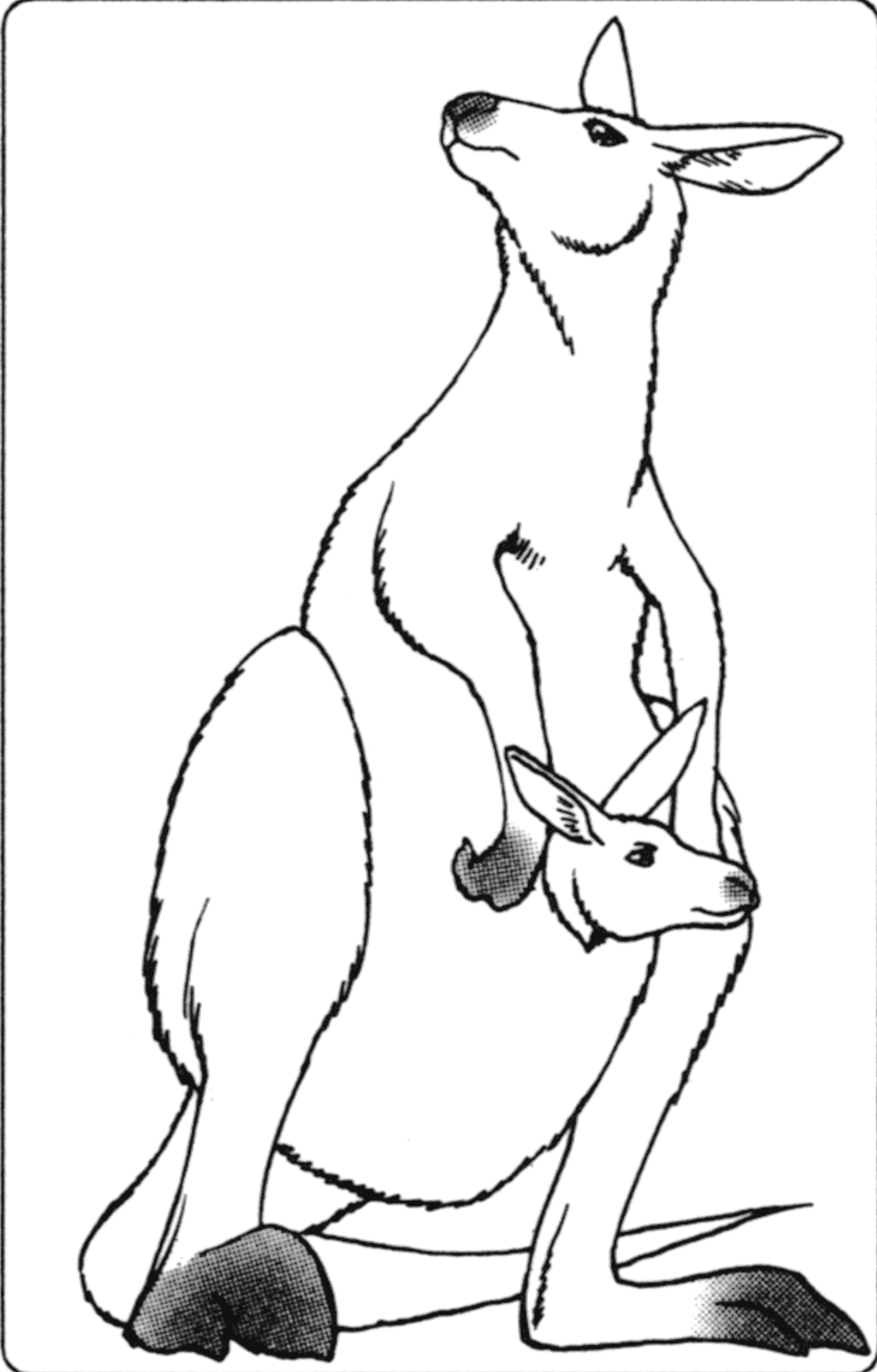
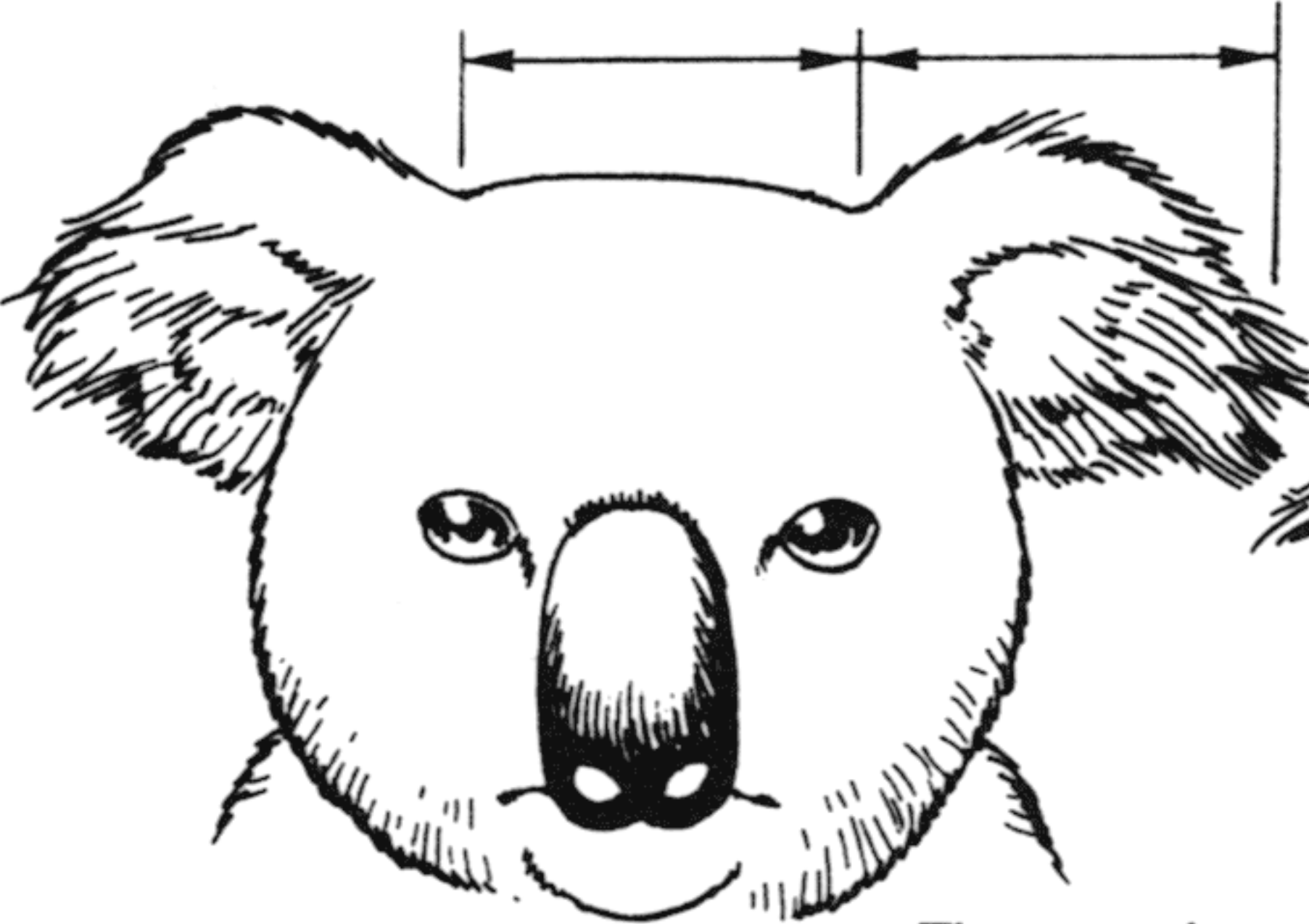
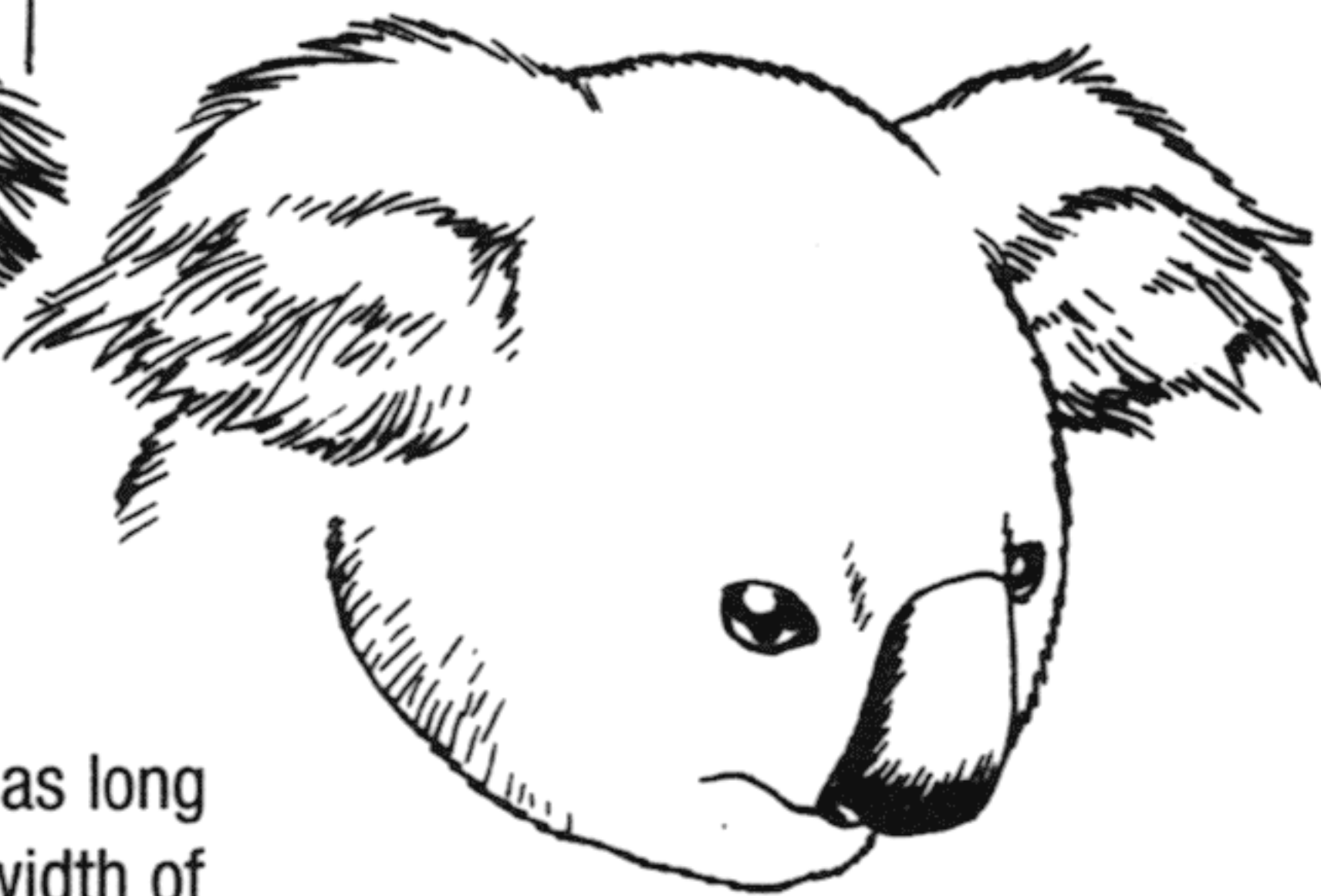
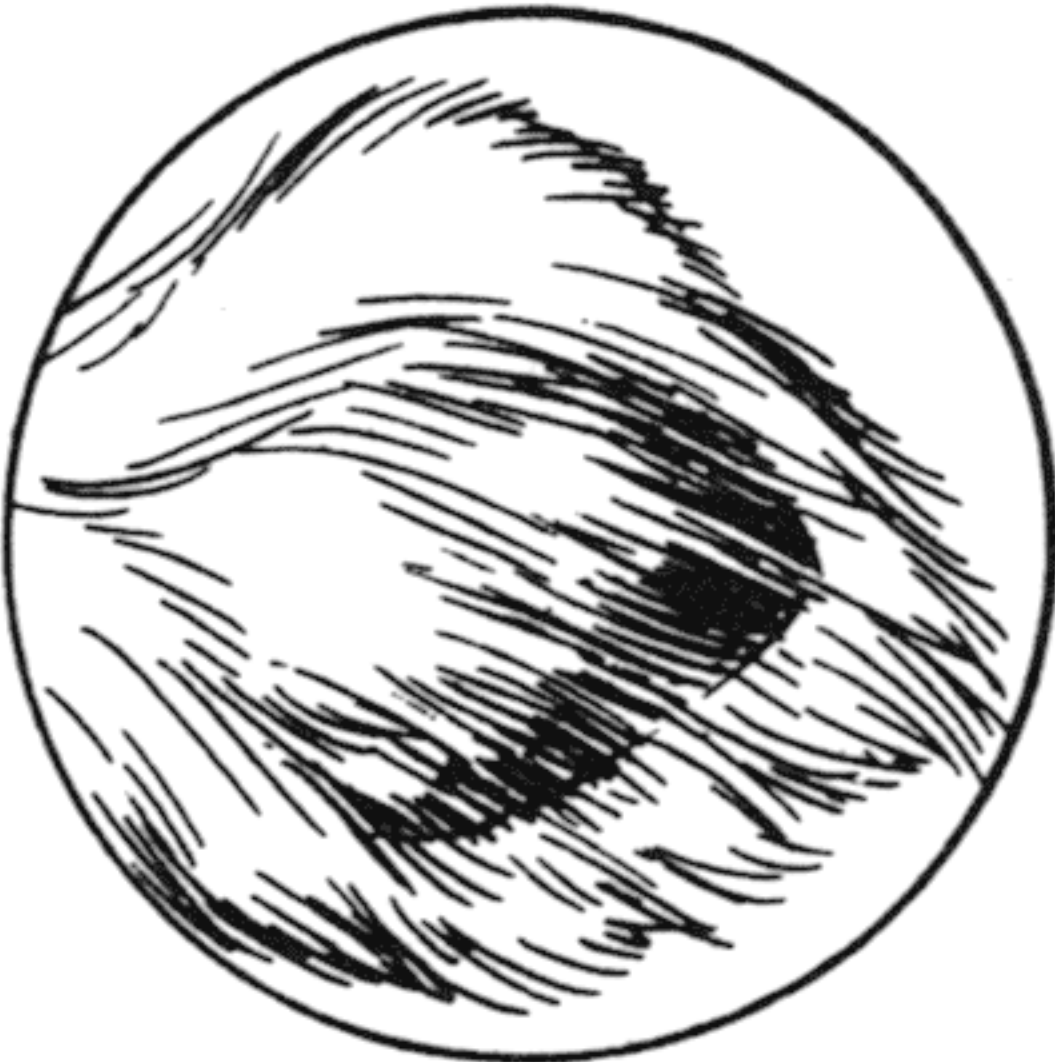
Ears turned to the side

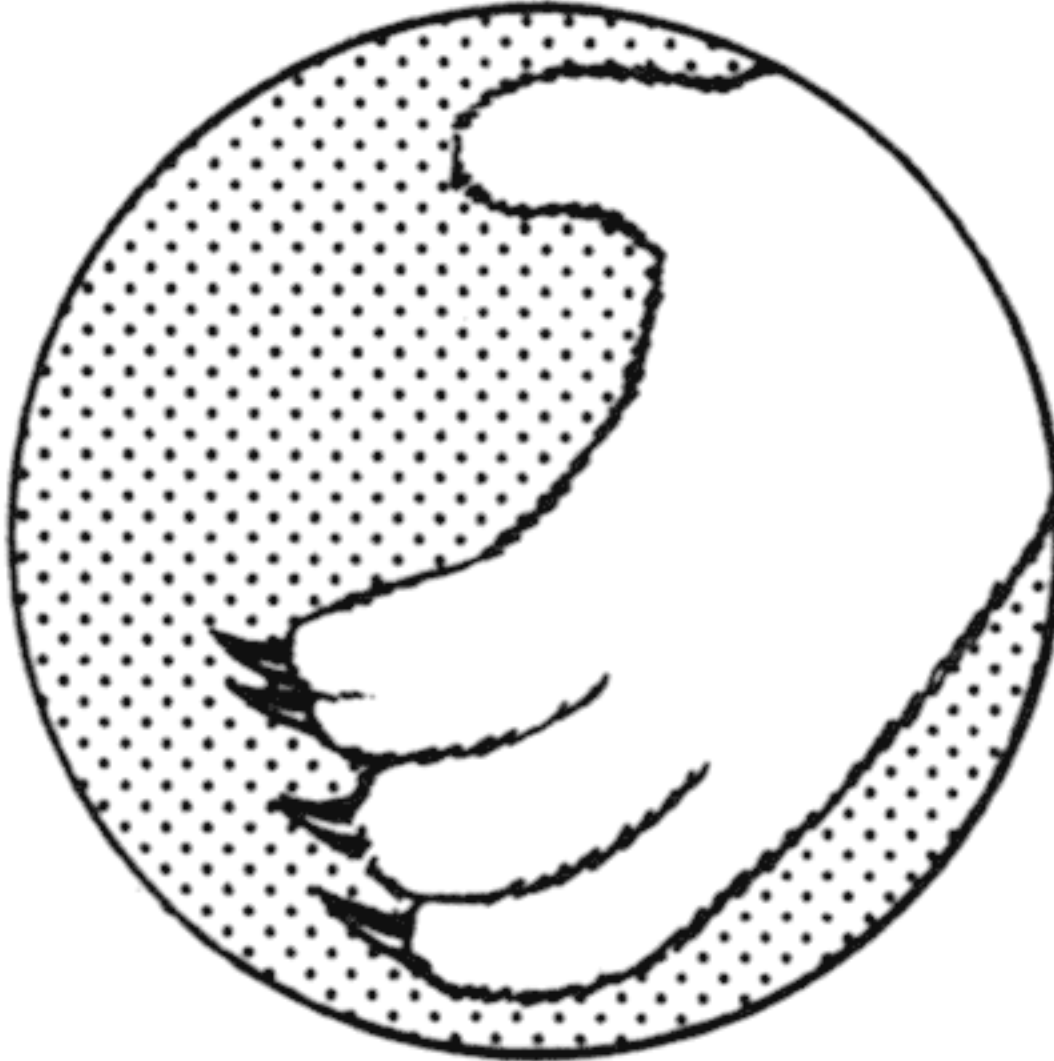
Ears rotated backwards

The ears are the same length as the face.

The legs are approximatel y half the full figure in length.

The feet are 1.5 times the head in length.

Mommy with Her Joey

Koalas

The nose and ears are about the same size.

The nose is as long as half the width of the face.

The index finger is slender and positioned next to the thumb, which is also slender.

The ears feature tufts of hair.

Abstracted ear

The fused second and third toes of the foot are slender and aligned with the other toes.

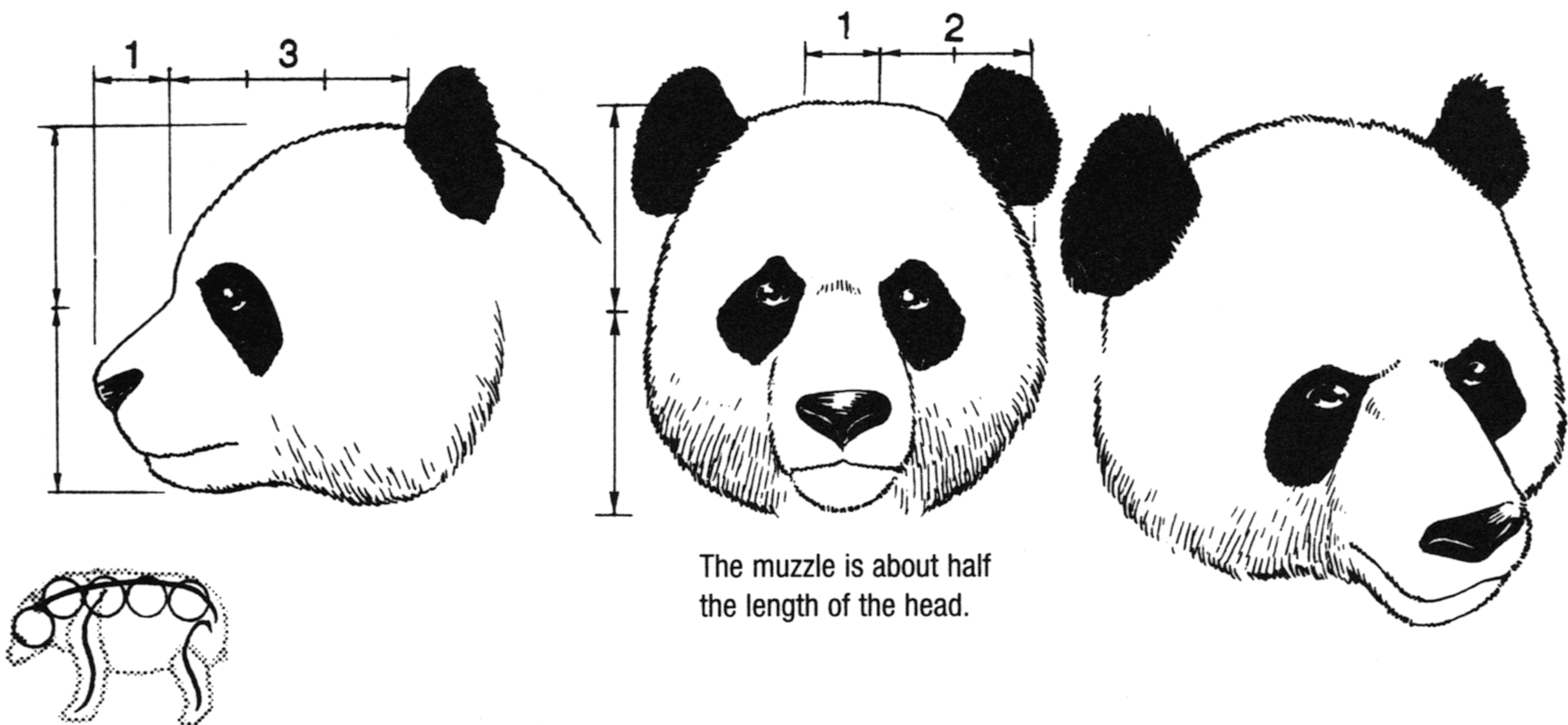
Baby Koala

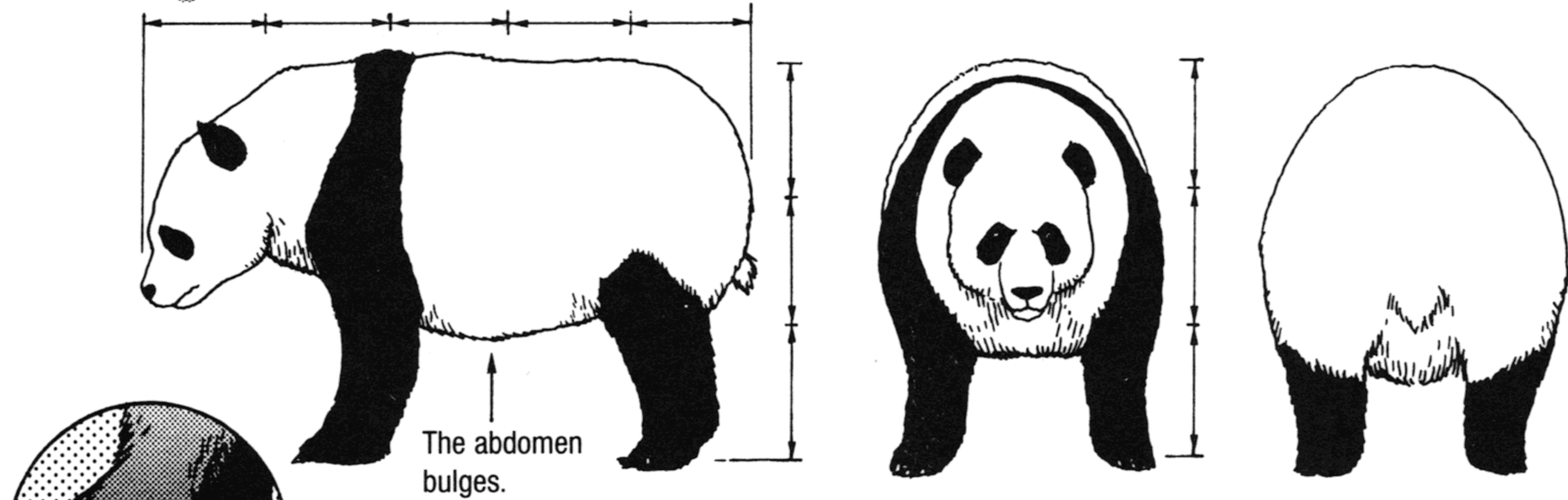
The juvenile koala's head is smaller but broader than the adult's. The eyes are also slightly more widely spaced.

Pandas

The almond-shaped eyes arc slightly upward. The forelegs' black fur extends to encircle the animal from the chest to the back.

1 3

1 2

The muzzle is about half the length of the head.

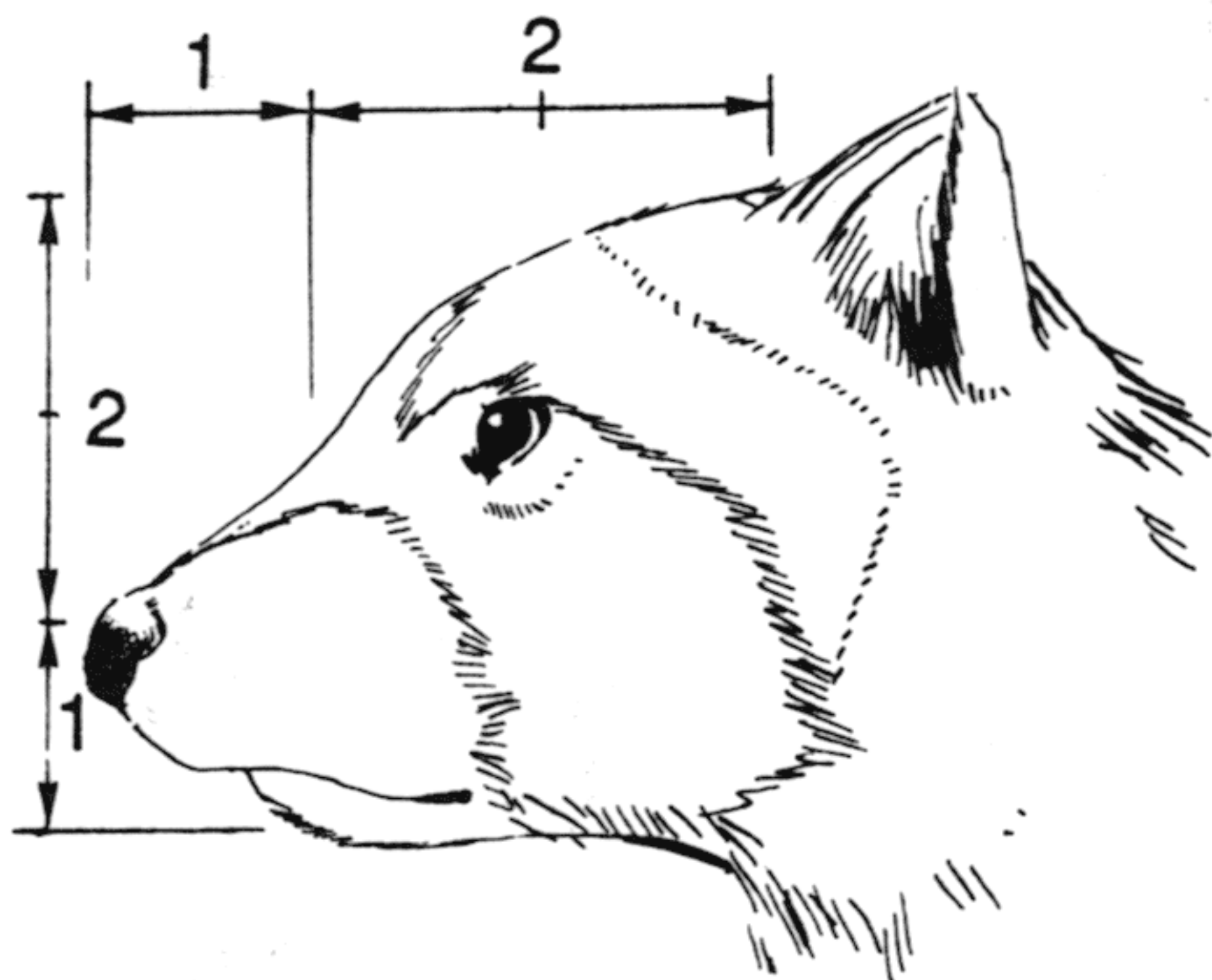
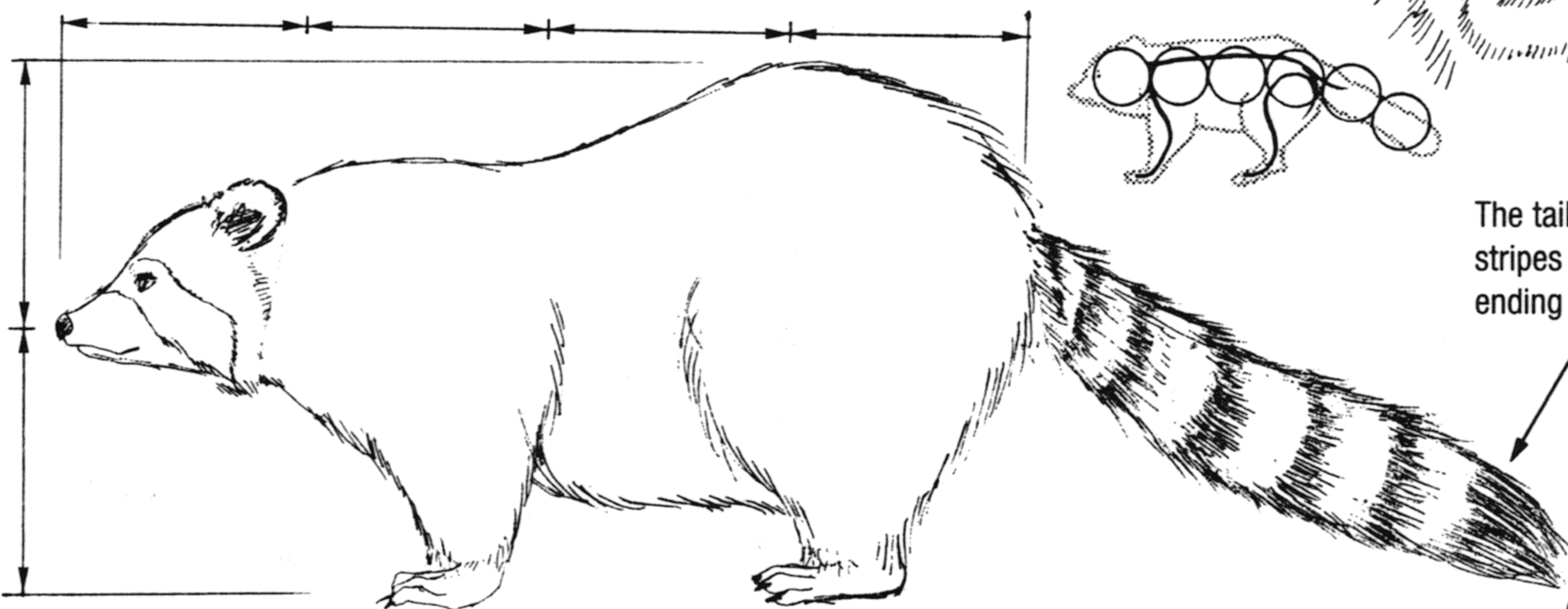
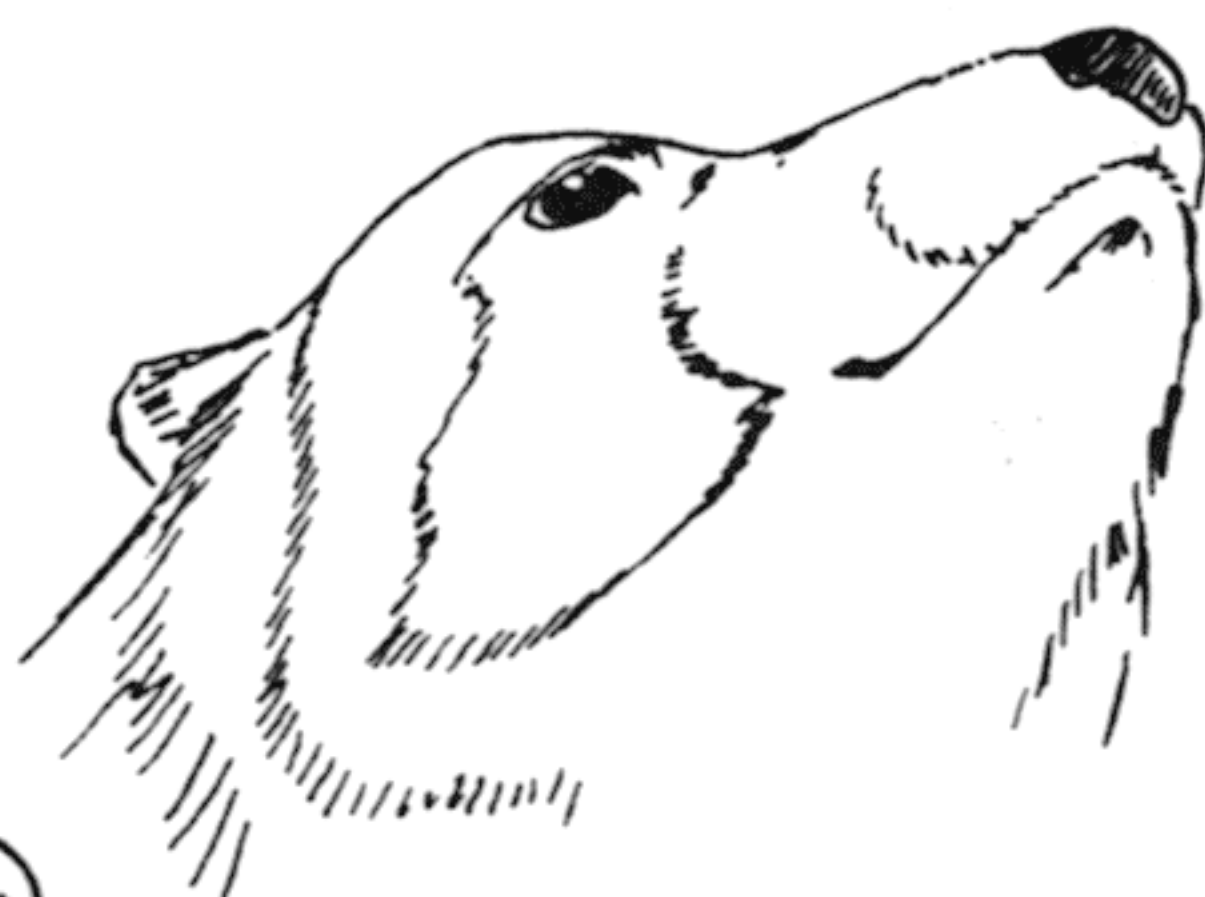
The abdomen bulges.

Raccoons

Black surrounds the raccoon's eyes like a mask as well as enveloping the nose and its feet. The tail has six rings with the ring size varying for each individual.

The line from the forehead to the tip of the nose forms a subtle S-curve.

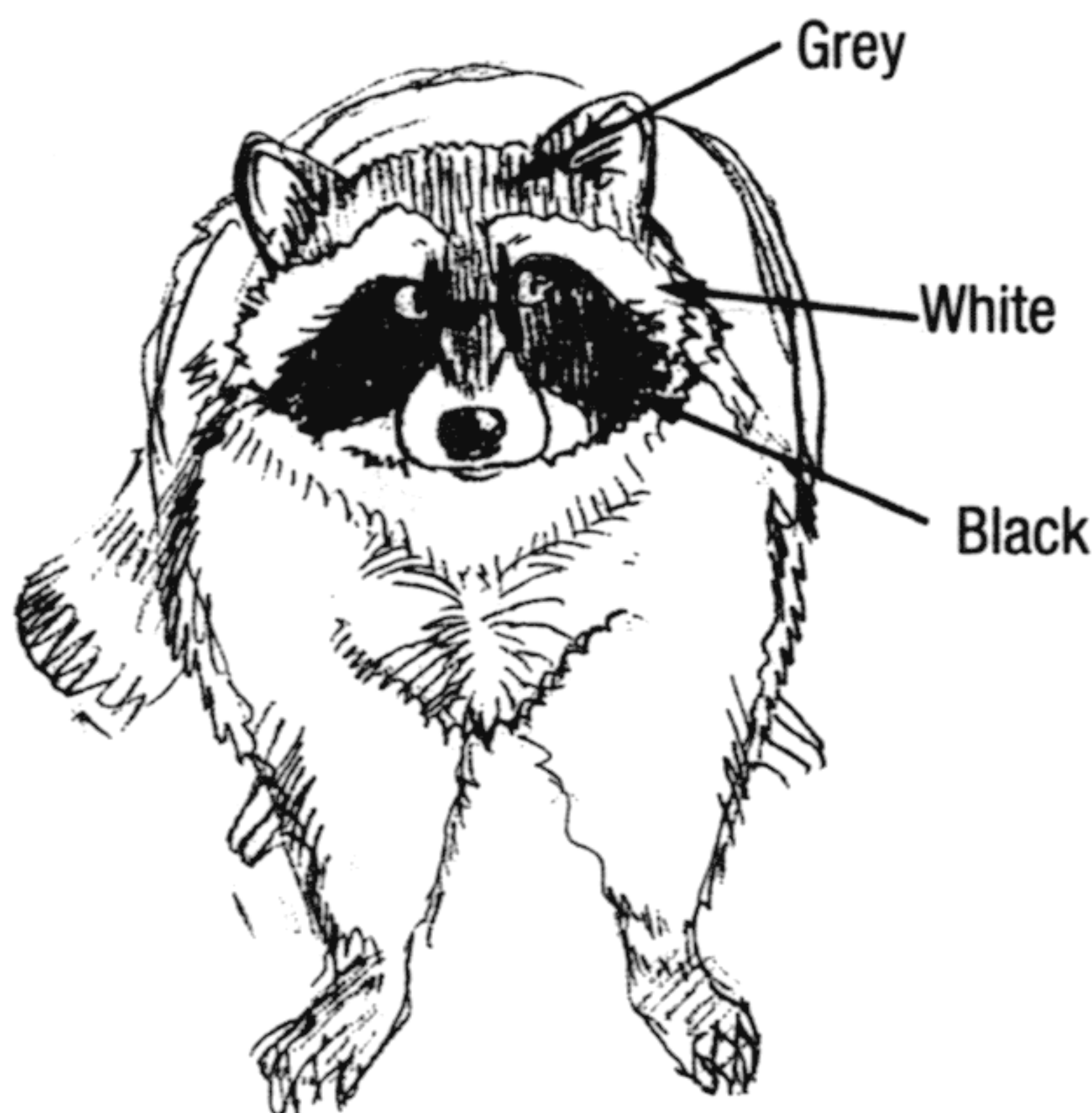
1 2

2

1

From the front, the raccoon's face is shaped like a flattened diamond.

The tail has six complete stripes with the tail ending in the seventh.

The ends of the feet are black.

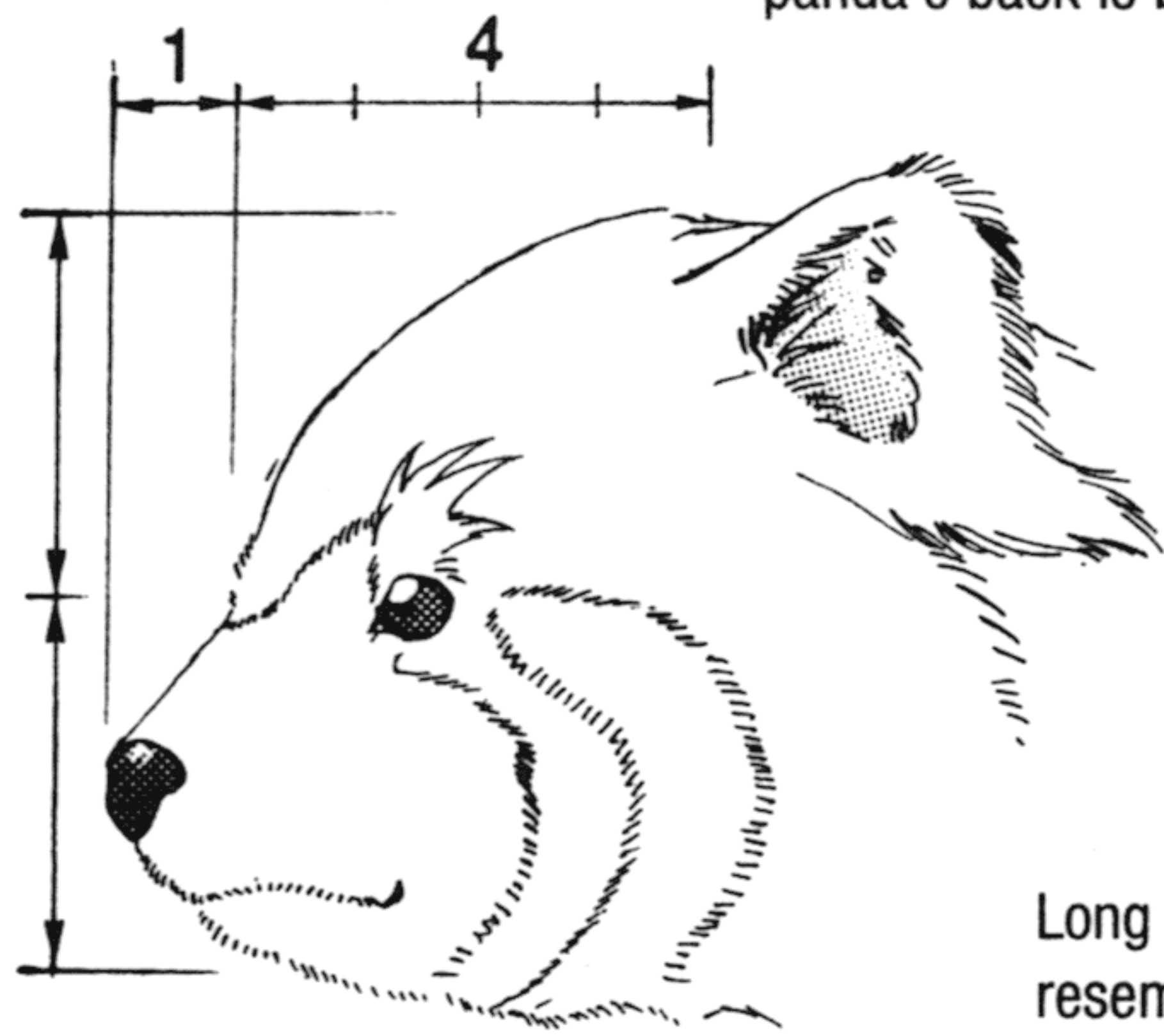
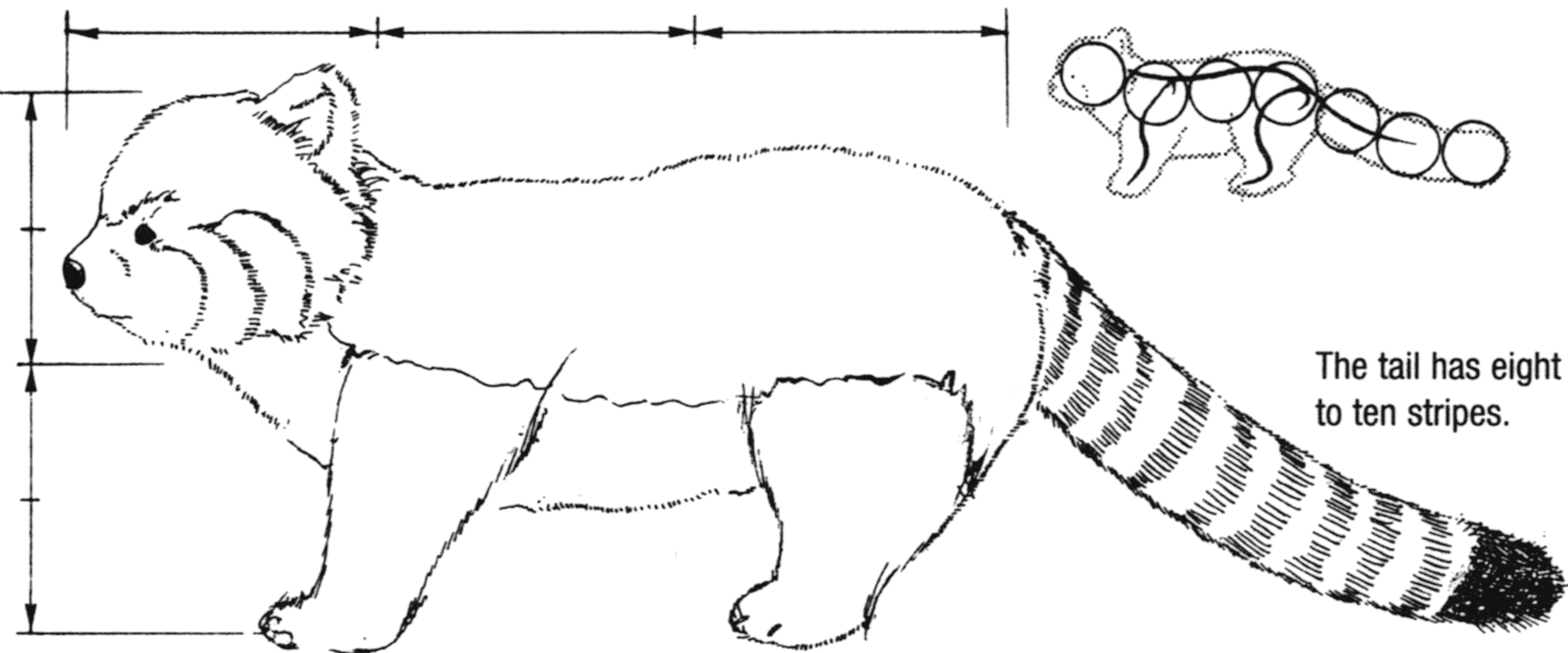
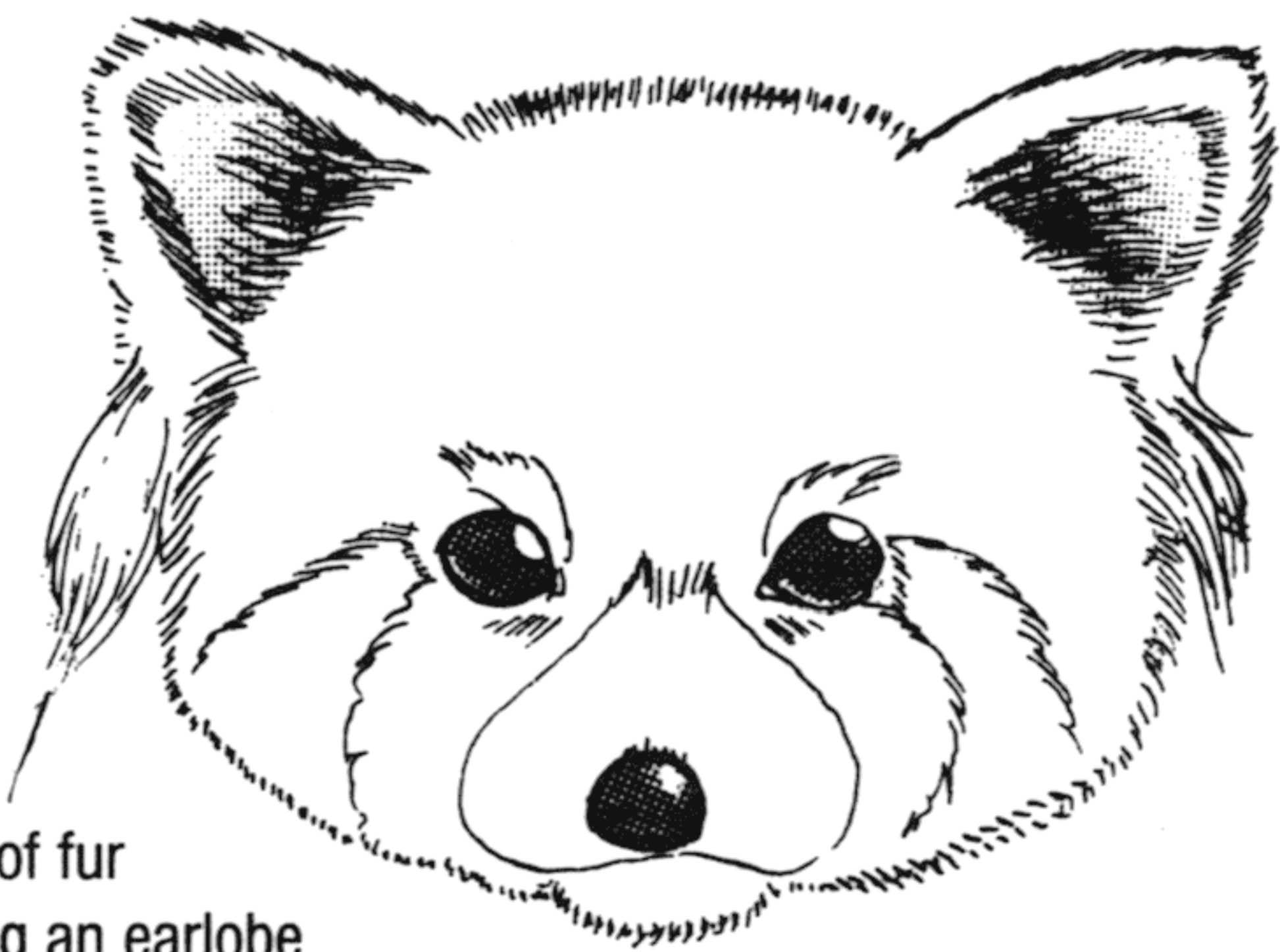
Grey

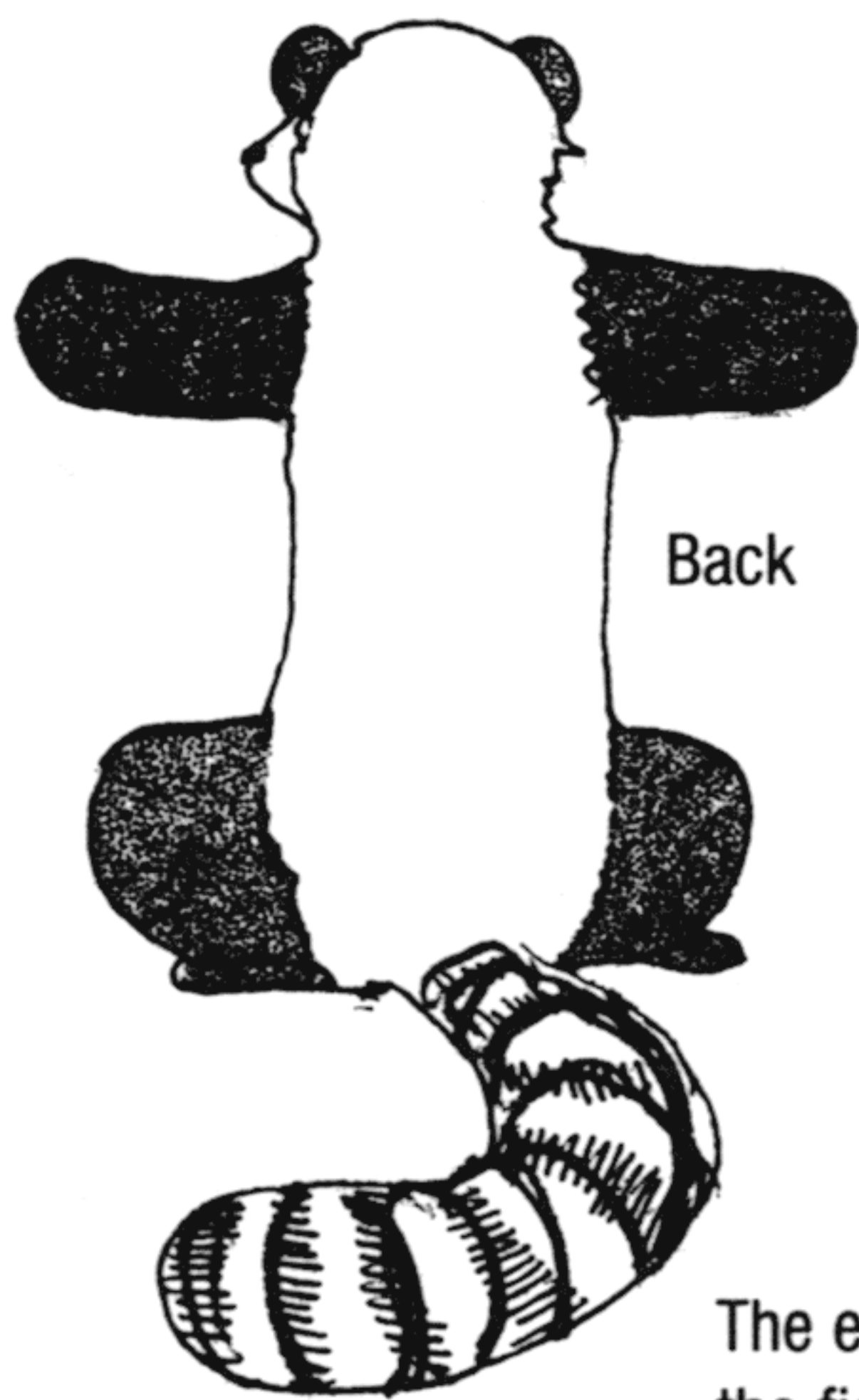
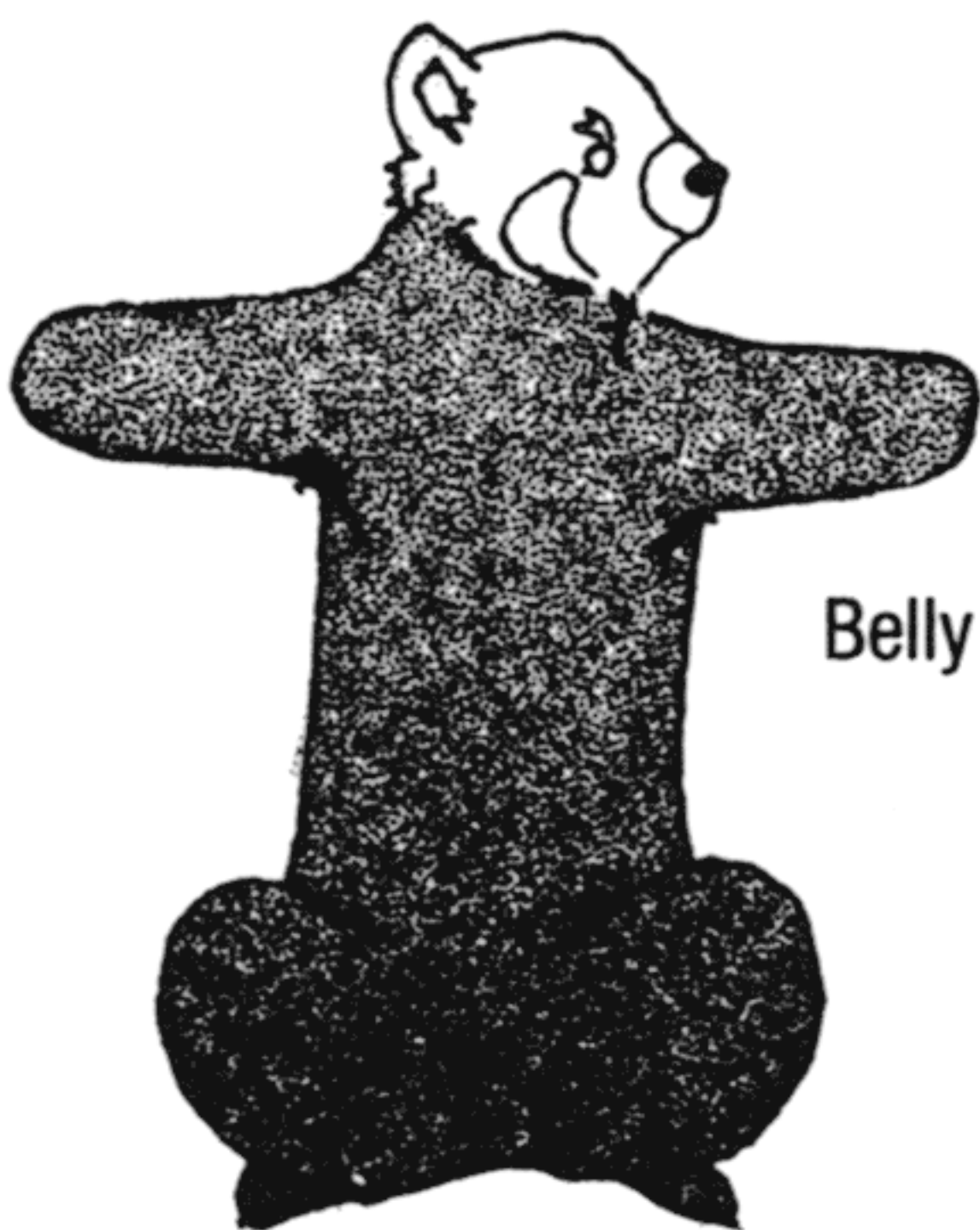
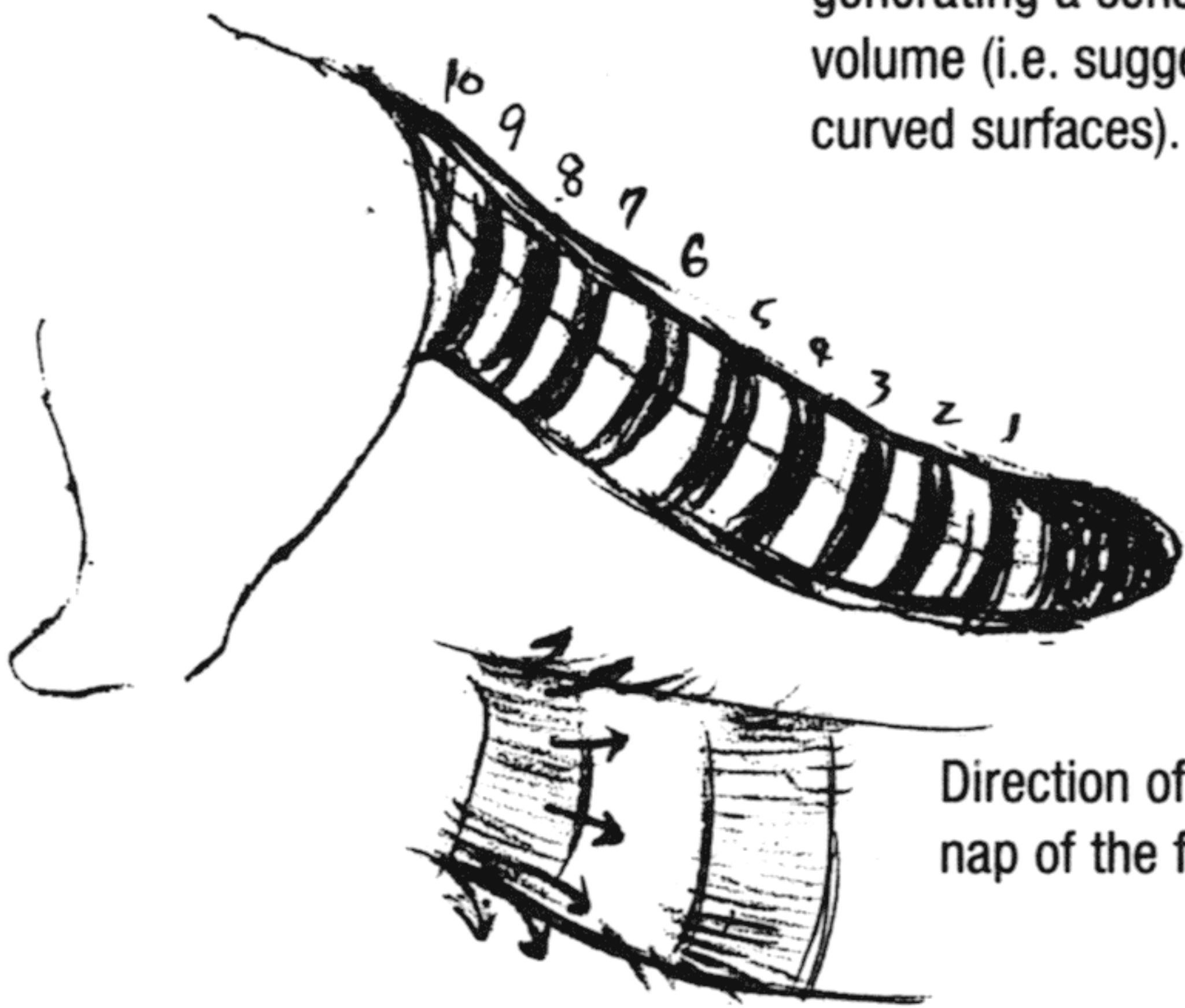
White

Black

The tip of the tail is also black.

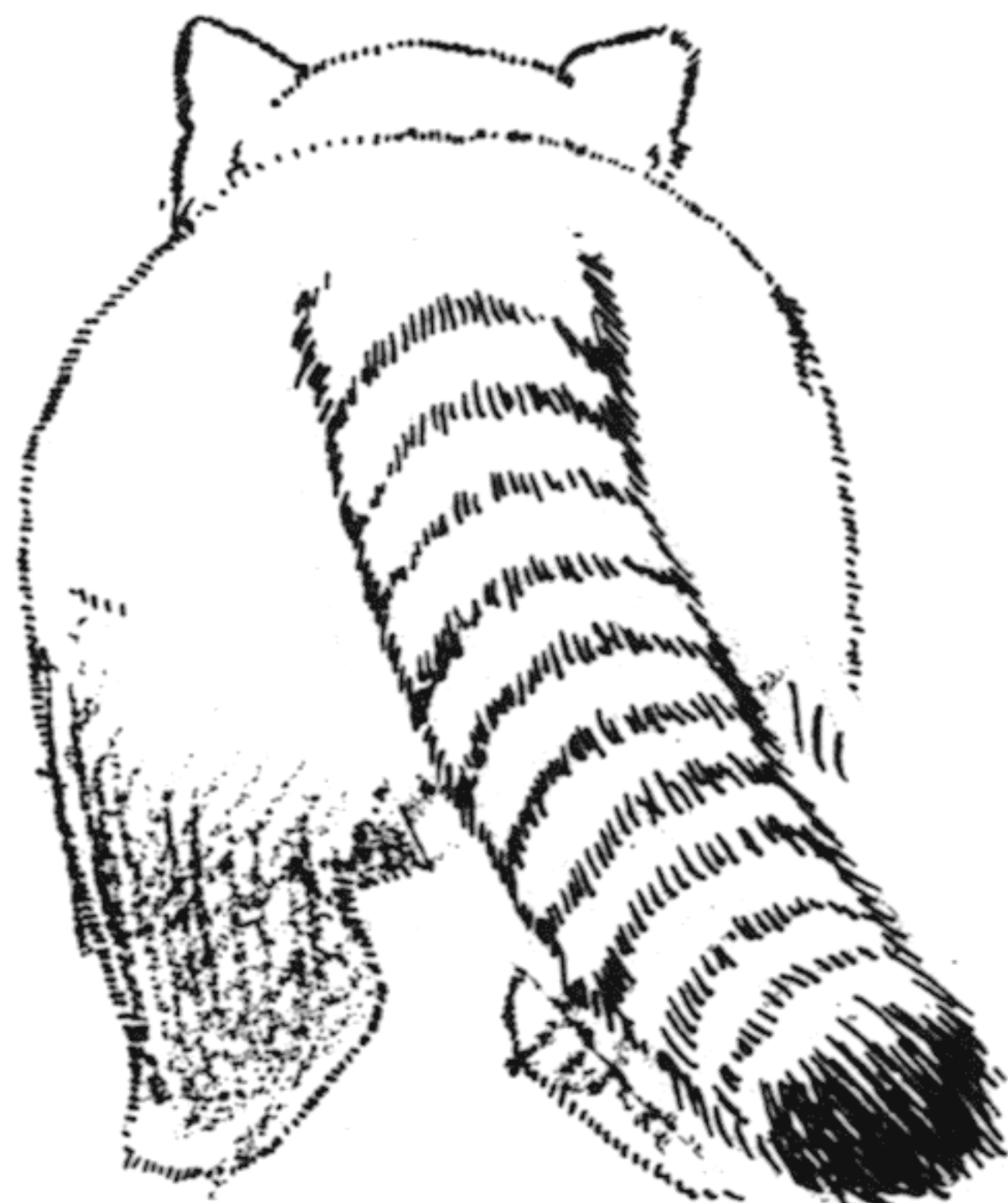
Lesser Panda

The lesser panda sports a round head and triangular ears. Growing at the base of its ears, are long, earlobe-like tufts of fur. While the lesser panda's back is brown, its legs and belly are virtually jet-black.

1 4

Long tuft of fur resembling an earlobe

The tail has eight to ten stripes.

When sketching the under drawing, take care with the number and spacing of the stripes as well as generating a sense of volume (i.e. suggesting curved surfaces).

Back

Belly

Direction of the nap of the fur

The entire belly (underside of the figure) should be black.

The lesser panda's magnificent claws are noticeable.

Foxes

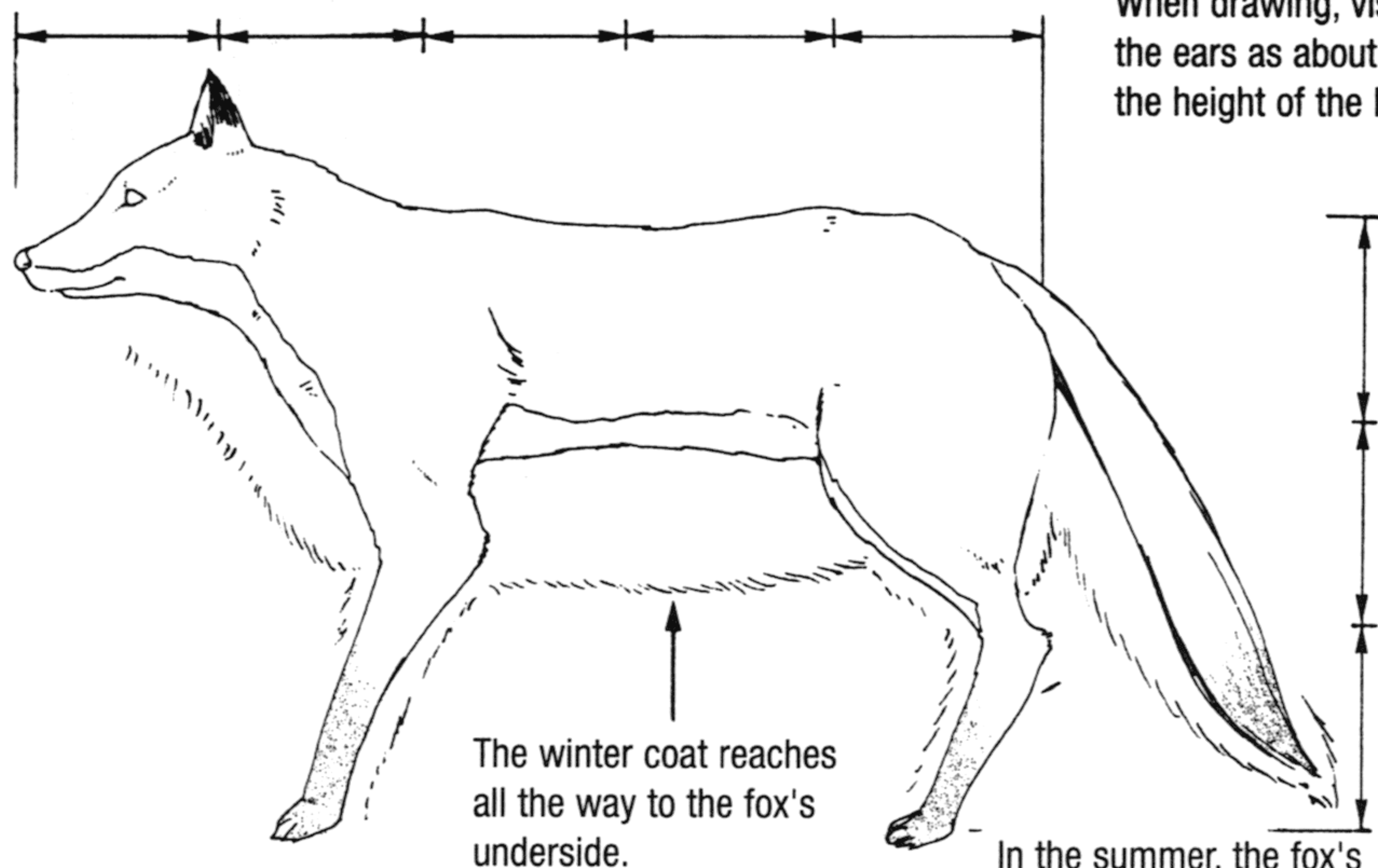
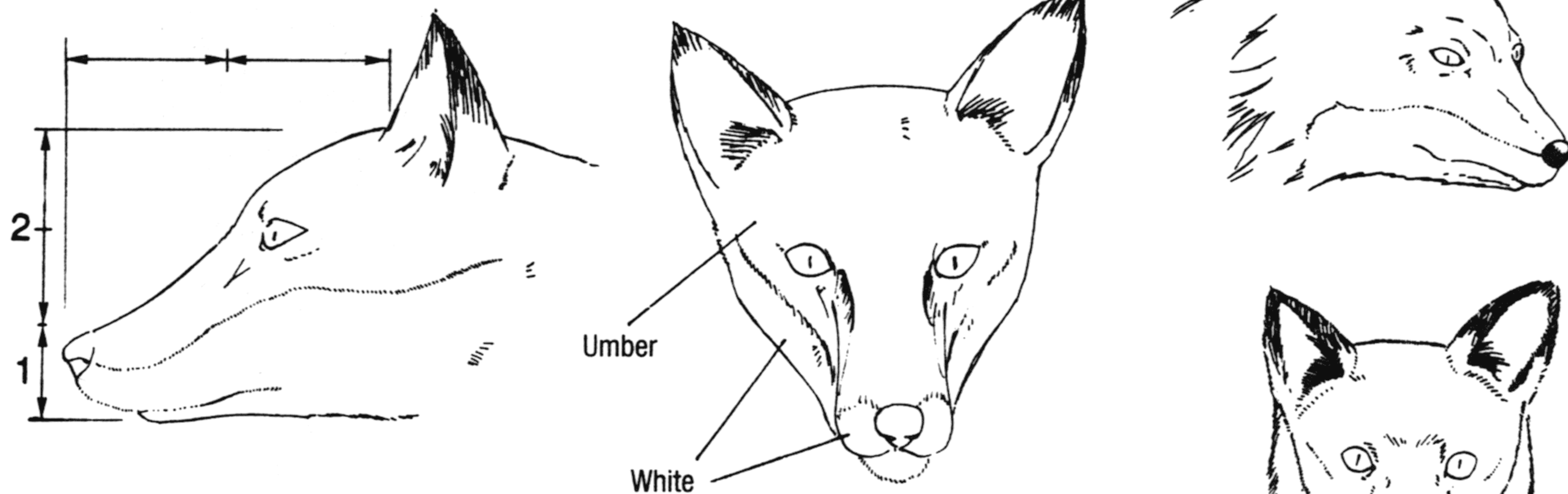
The fox has a triangular face. I recommend giving the snout a long, cylindrical silhouette.

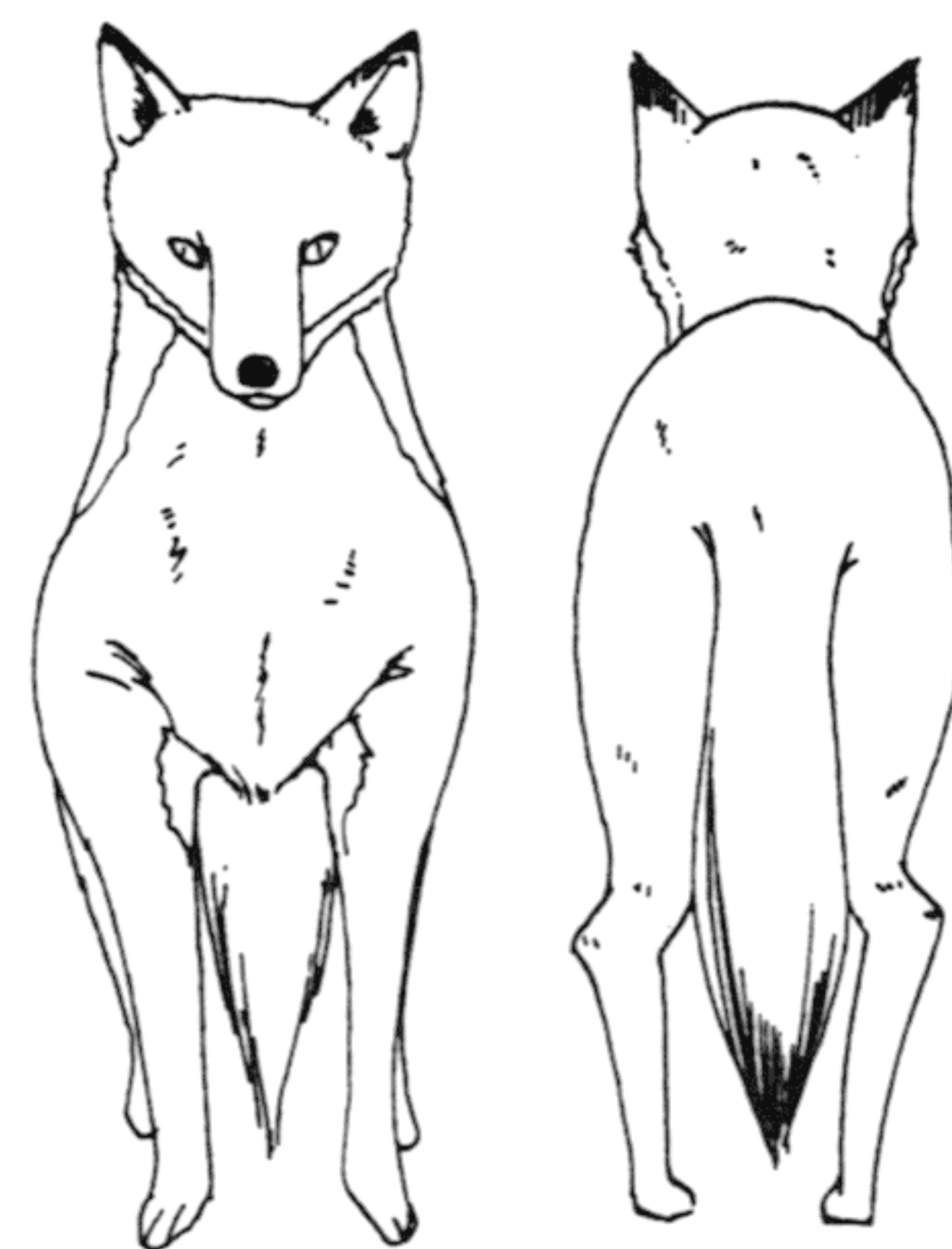
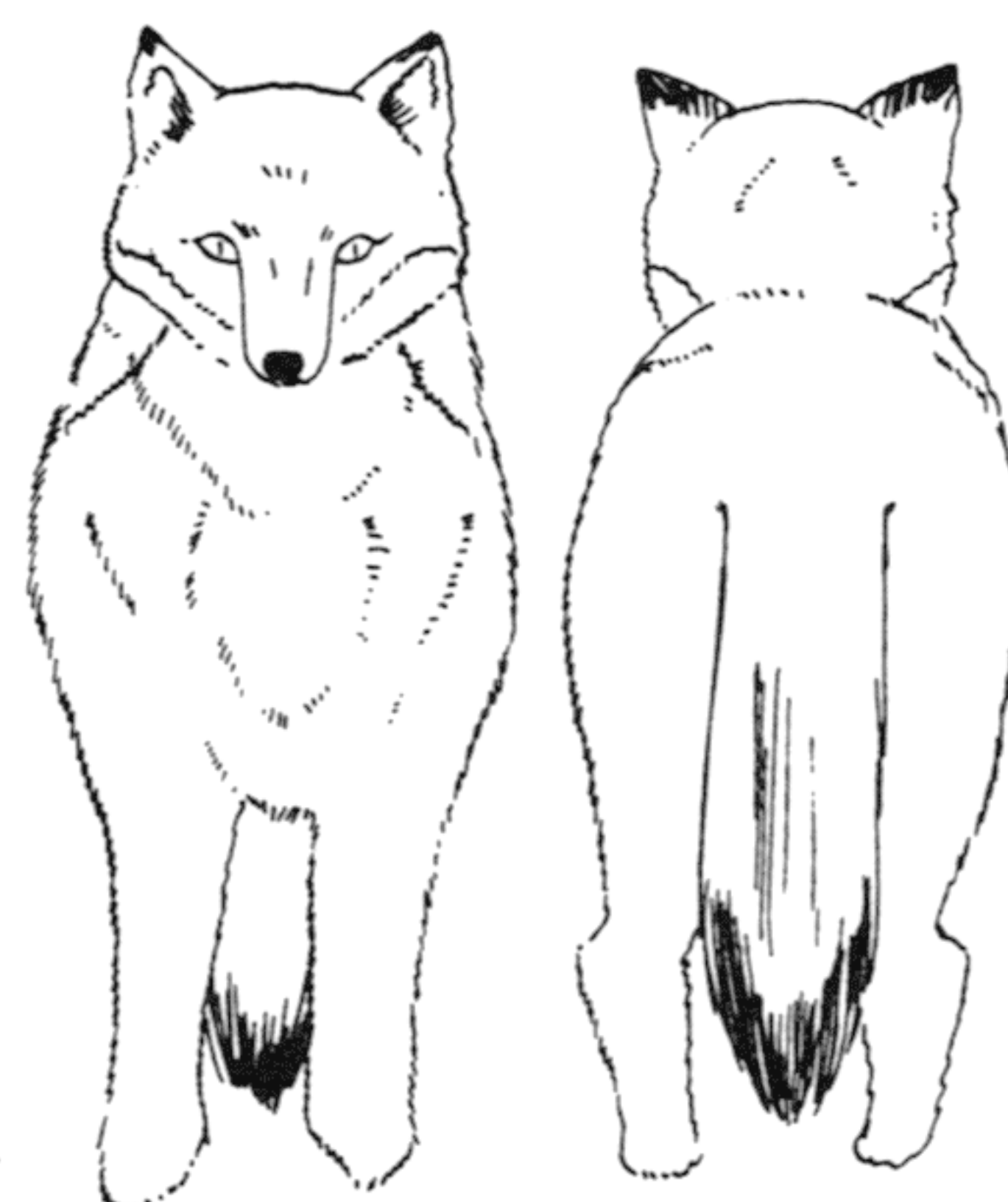
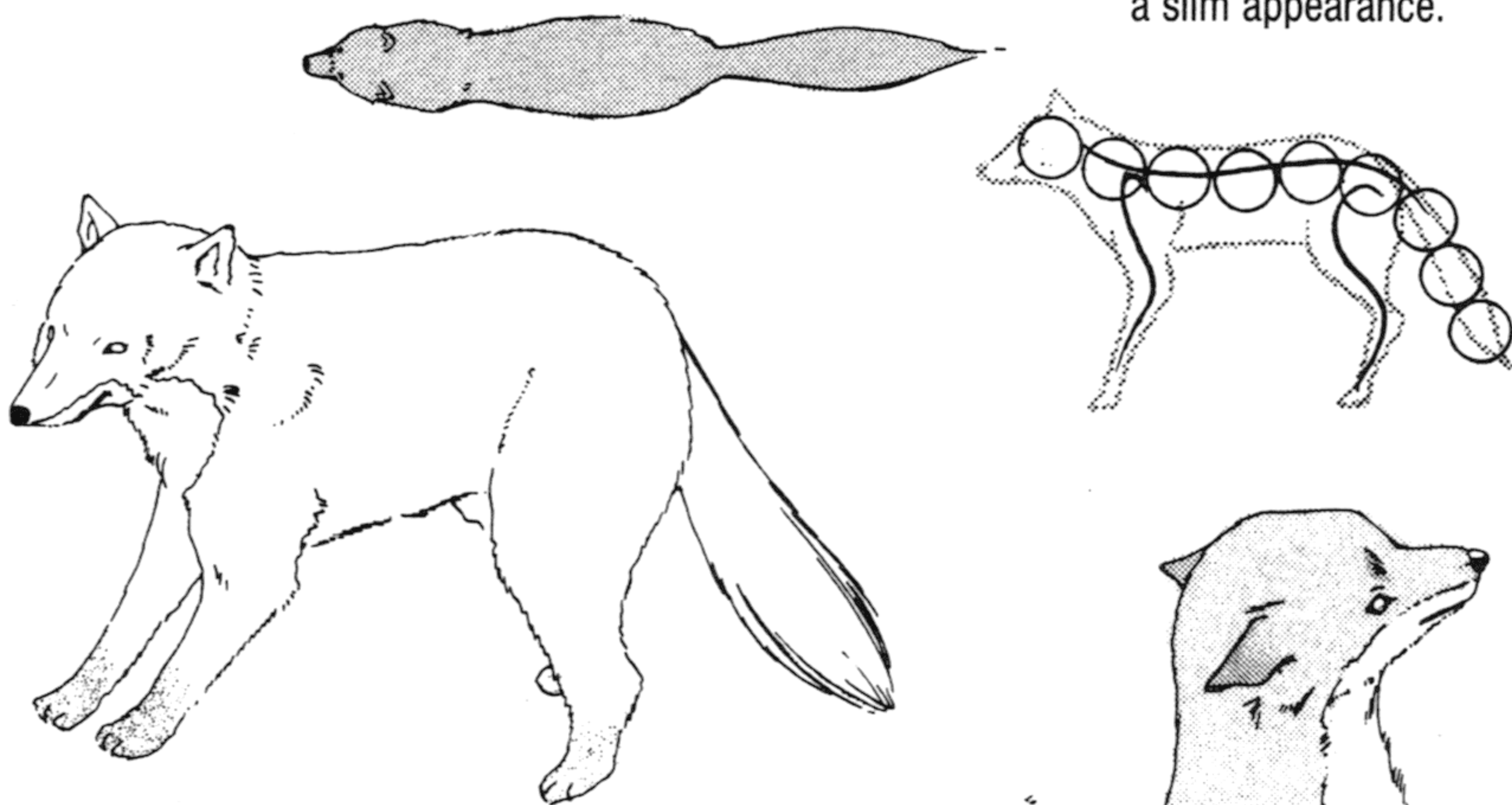
2

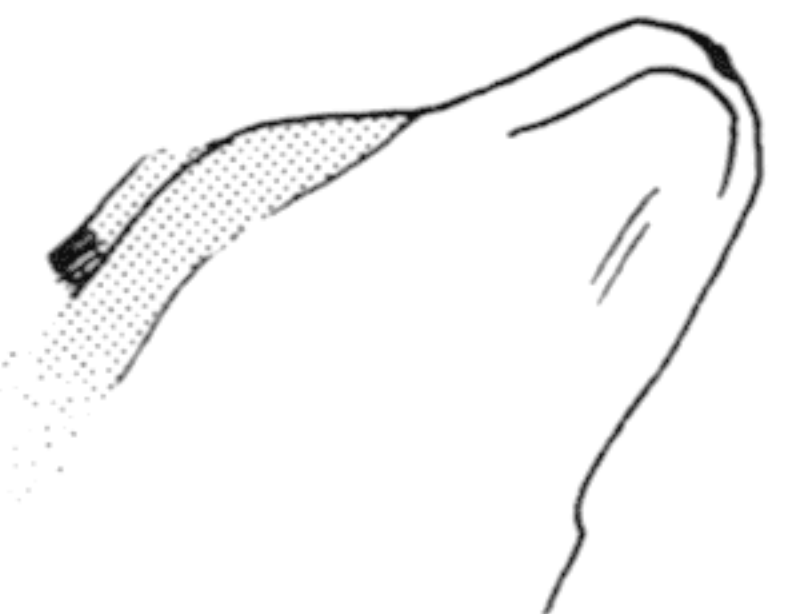
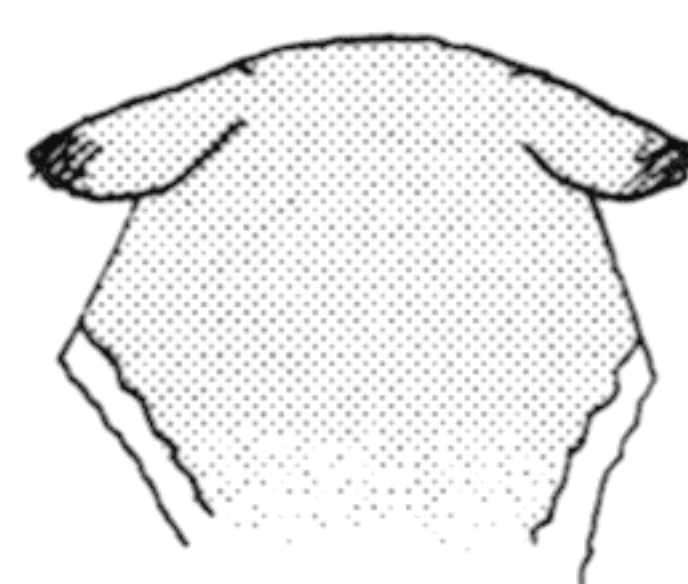
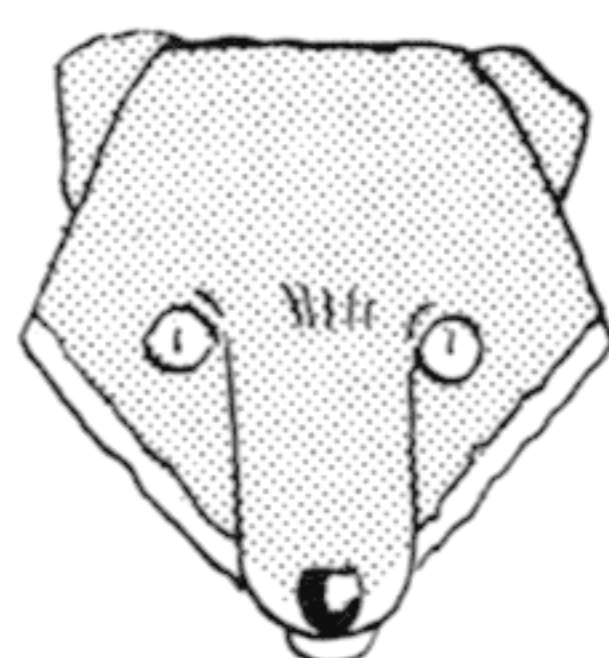
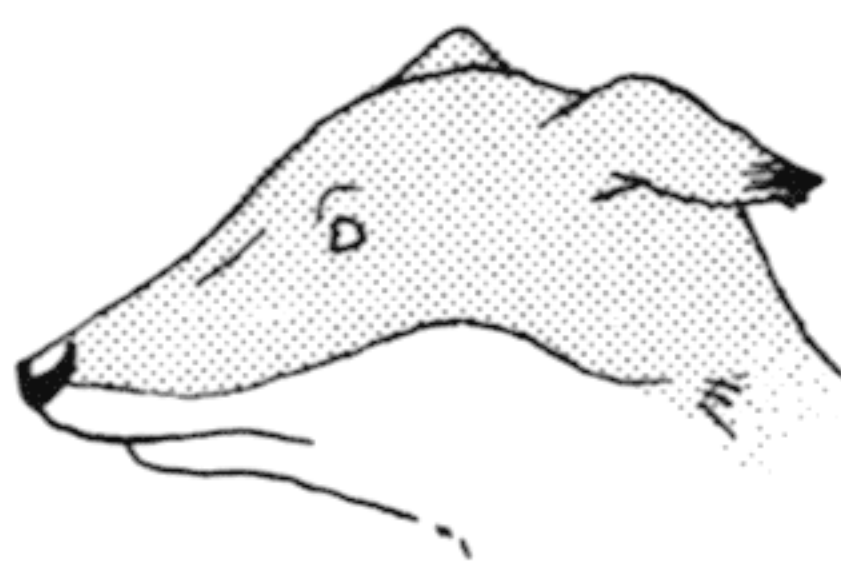
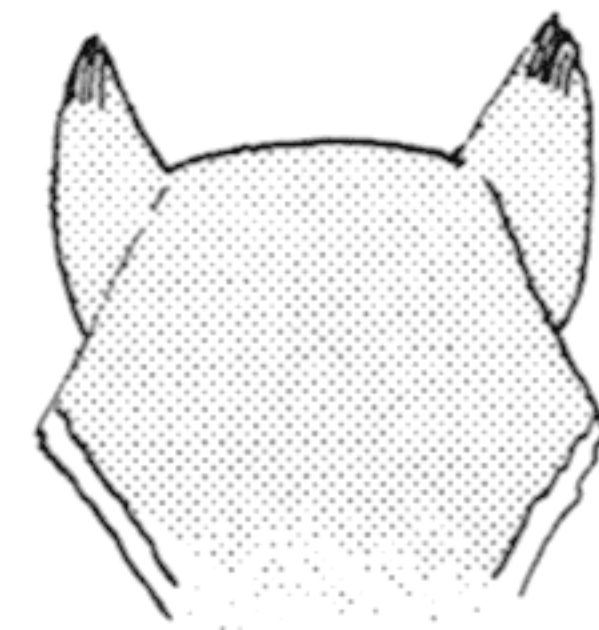
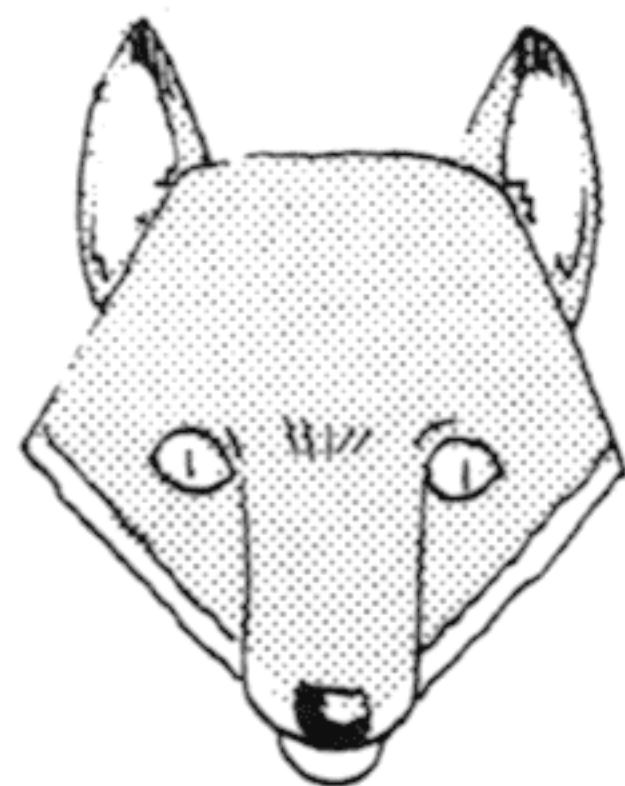
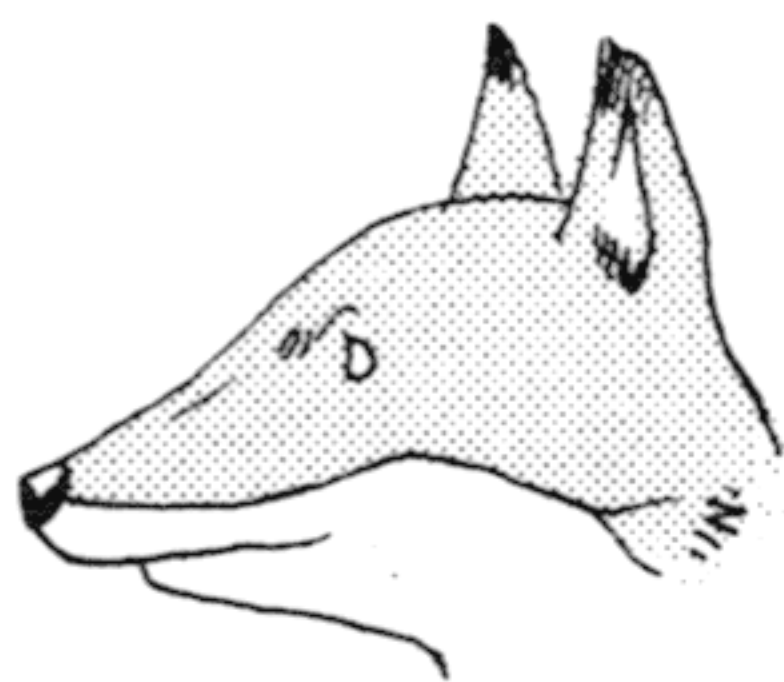
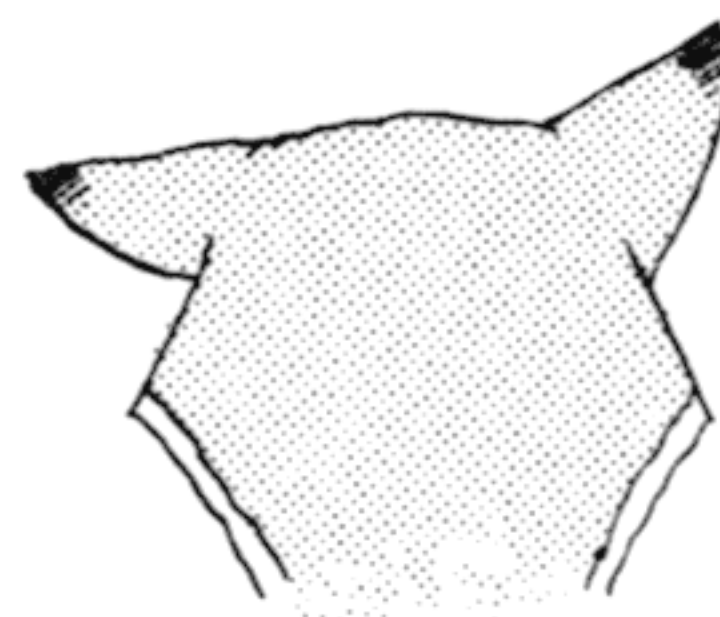
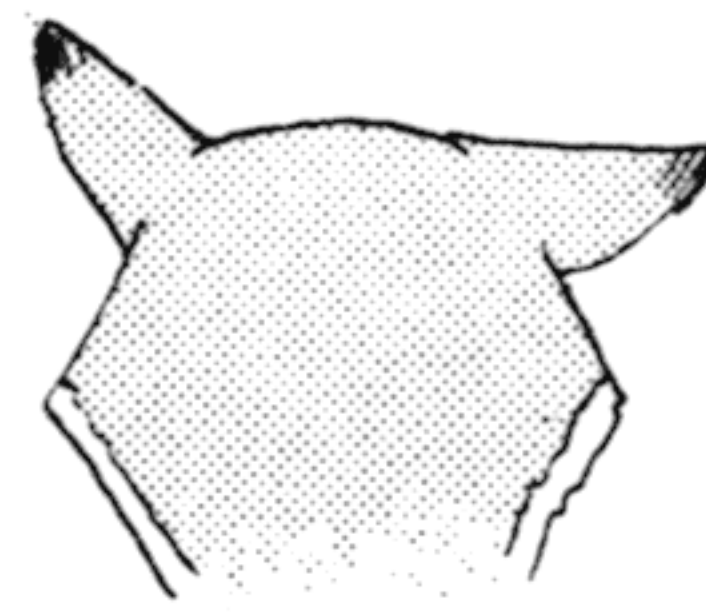
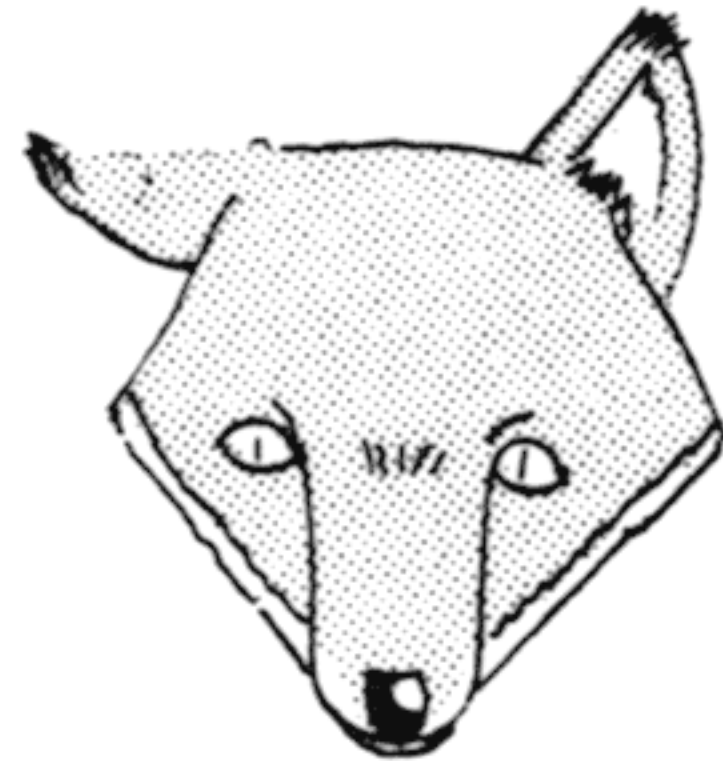
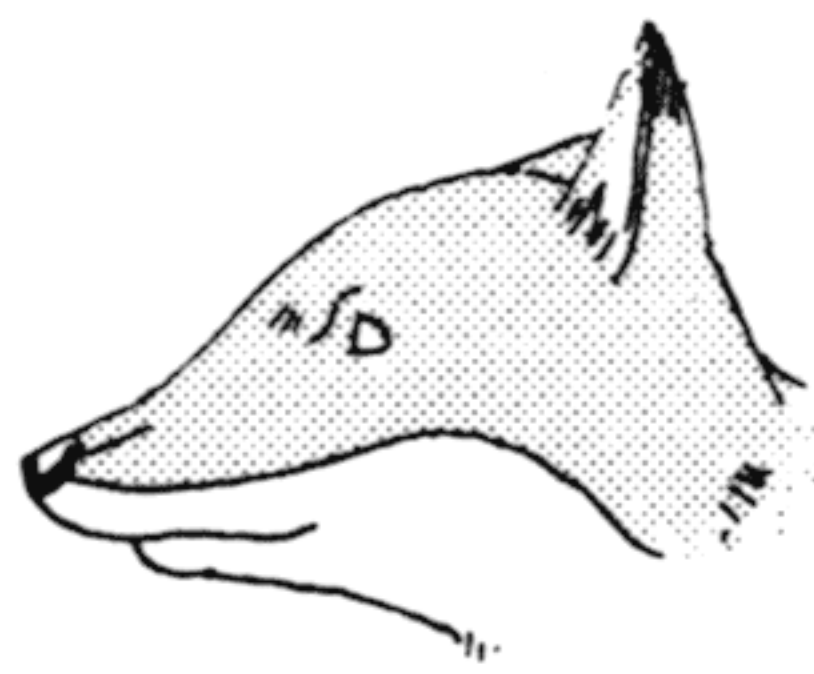
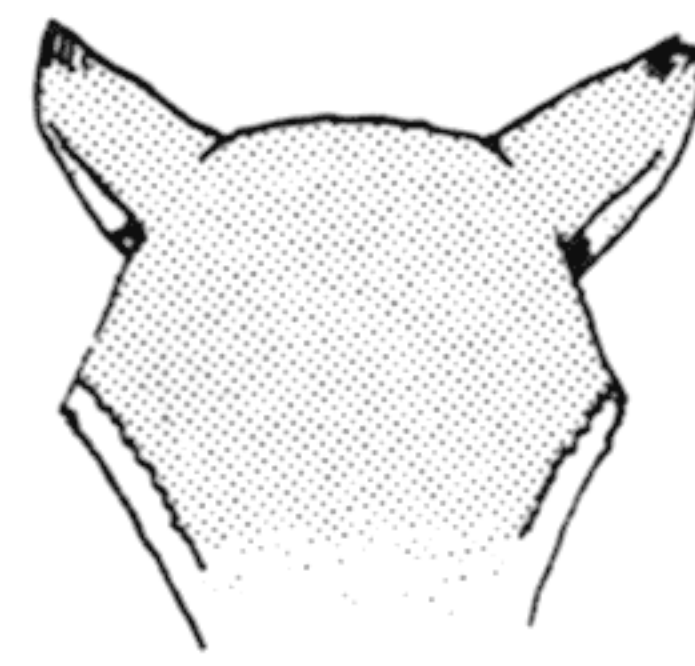
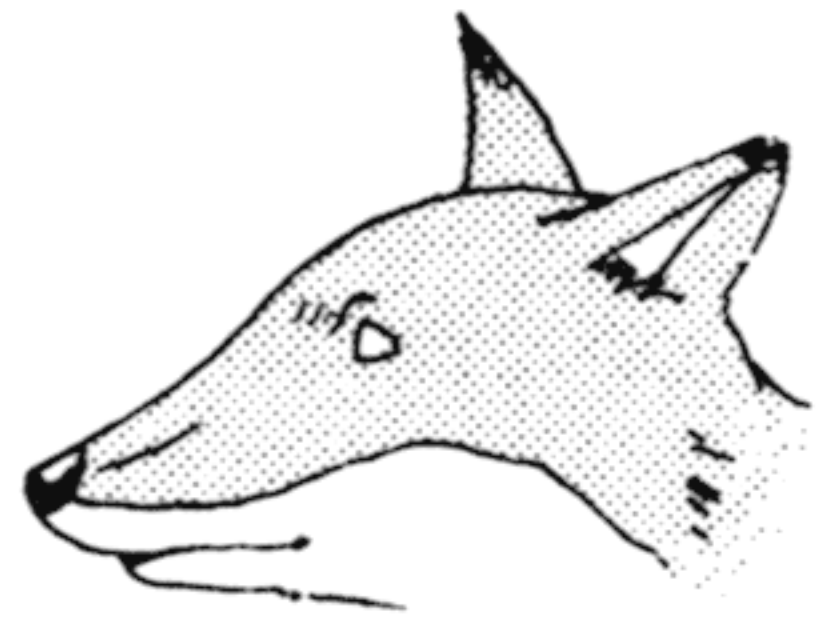
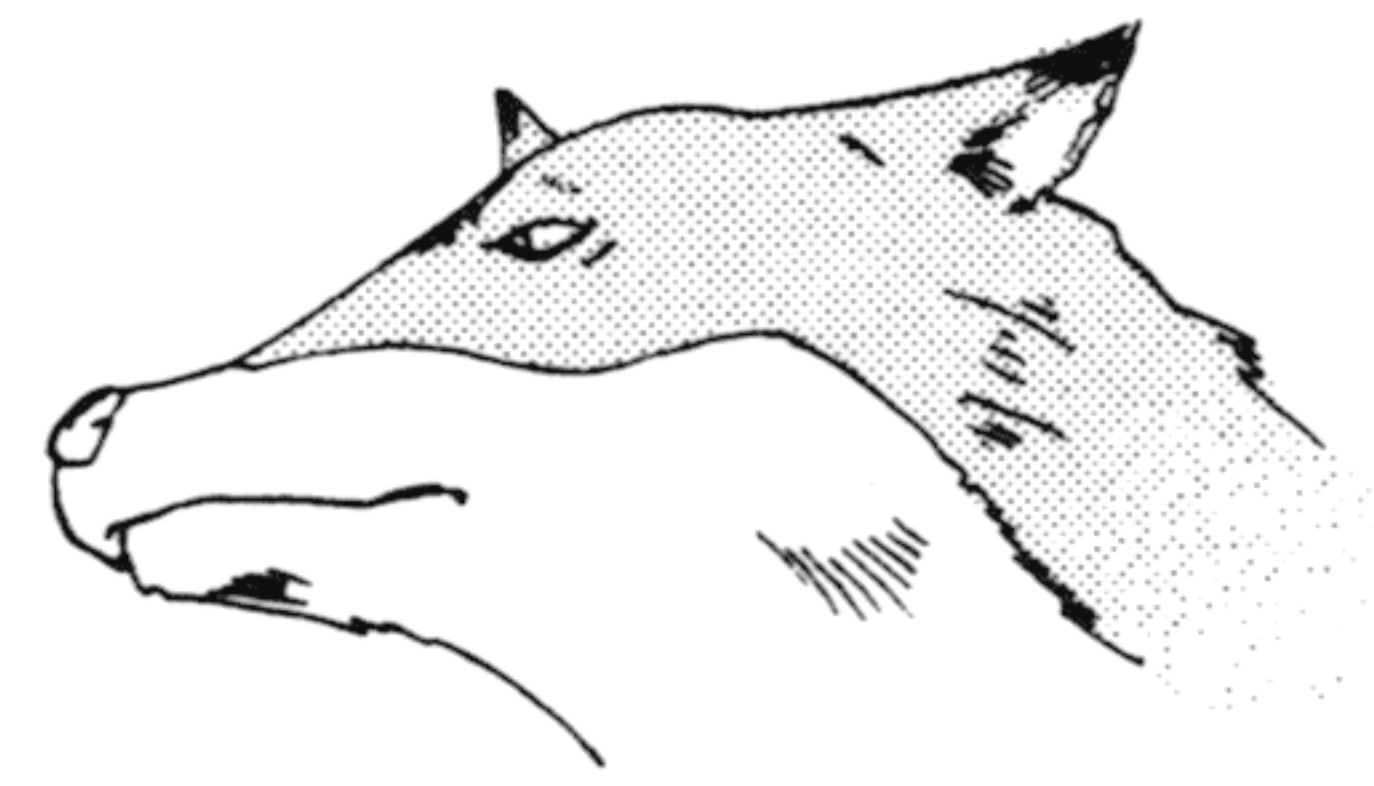
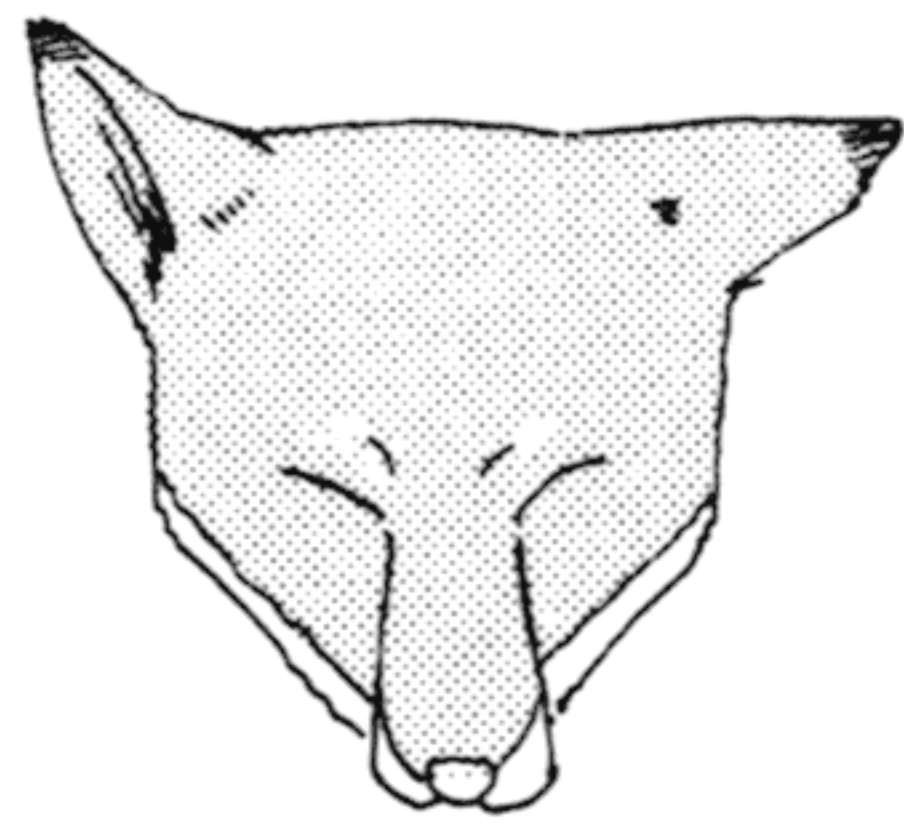
1

The tips of the ears are a dark burnt umber.

Umber

White

When drawing, visualize the ears as about half the height of the head.

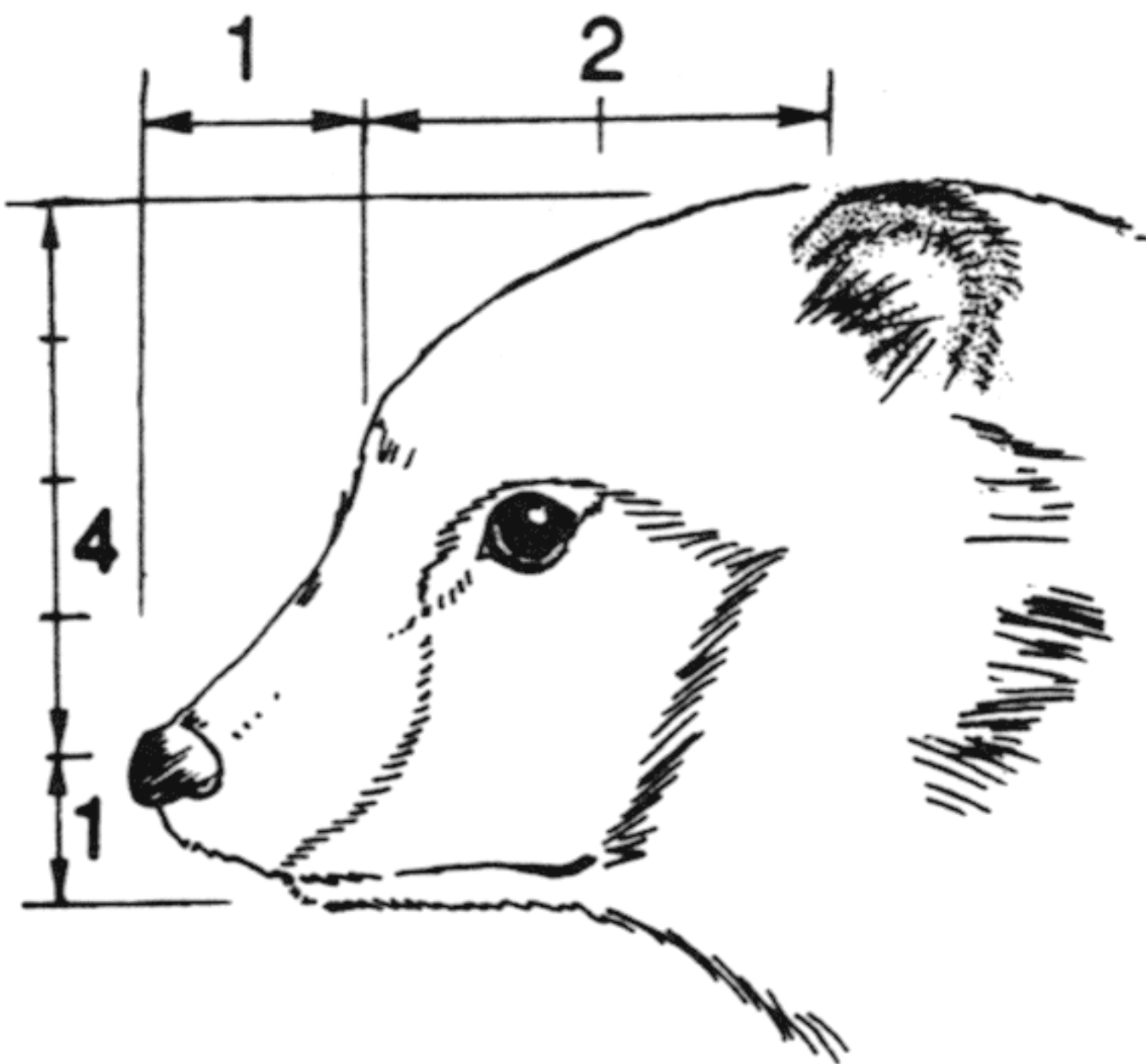
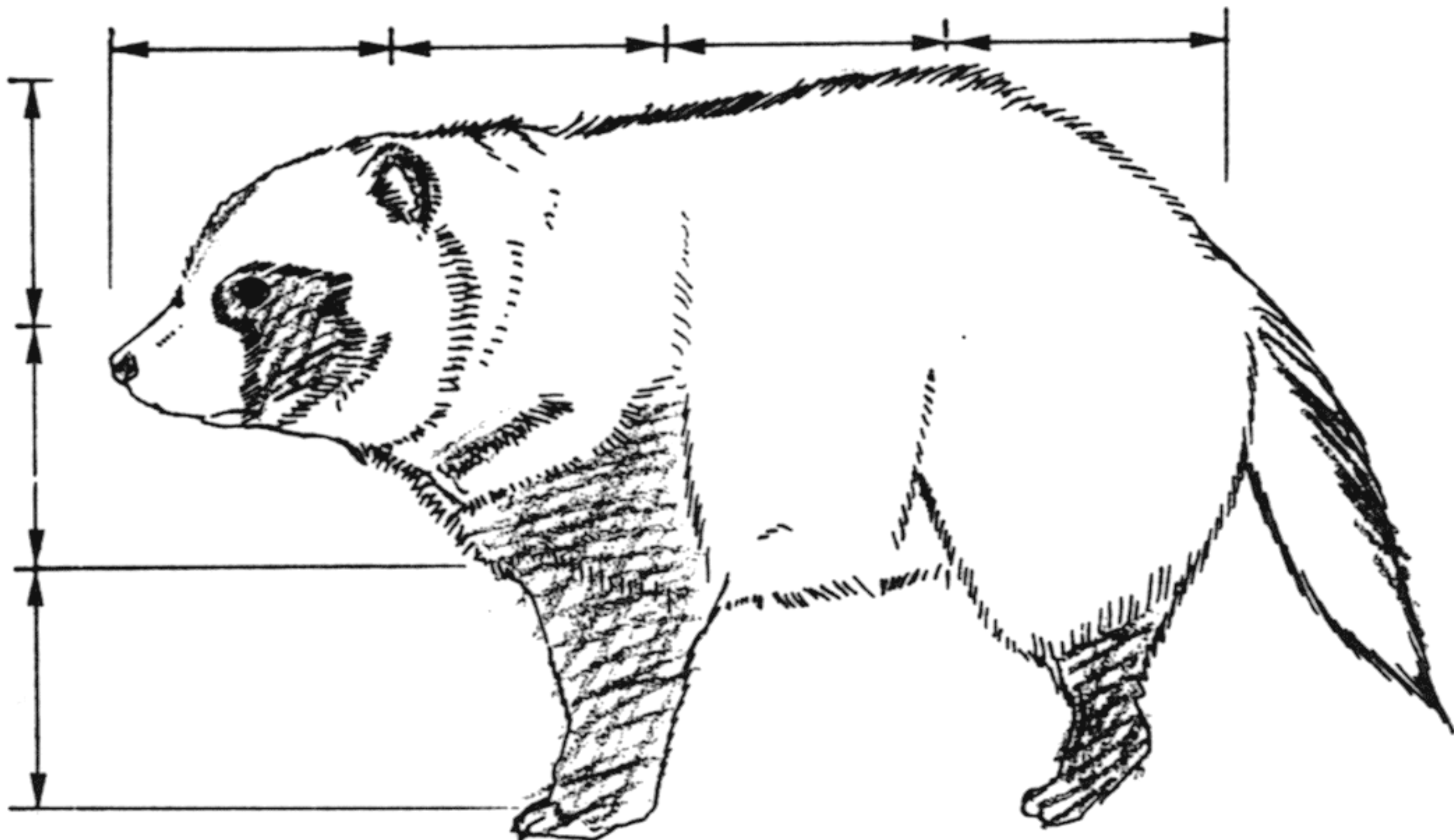
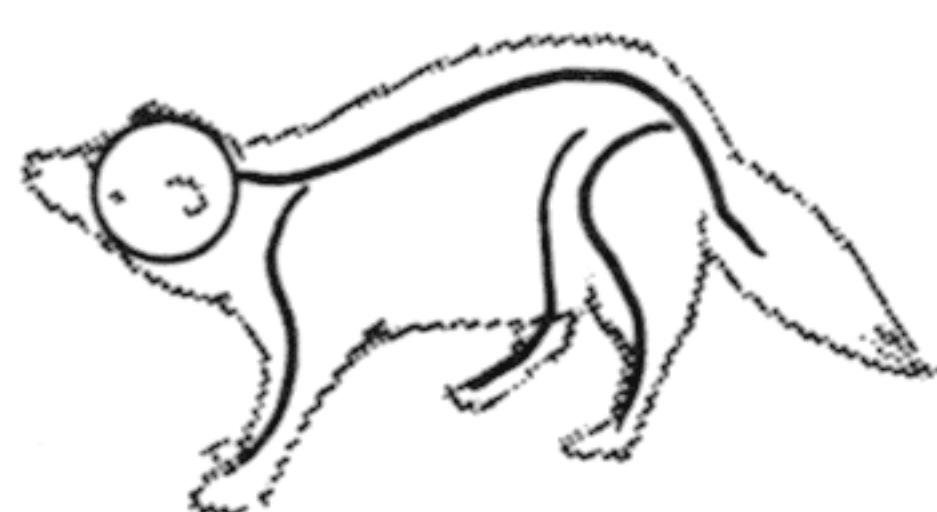
The winter coat reaches all the way to the fox's underside.

In the summer, the fox's coat is short, giving him a slim appearance.

In the winter, the fox's coat increases to about 1.5 times its summertime volume.

Ears: Not only are foxes' ears agile, but so are those of cats, deer, hippos, bears, and most other animals.

Raccoon Dogs

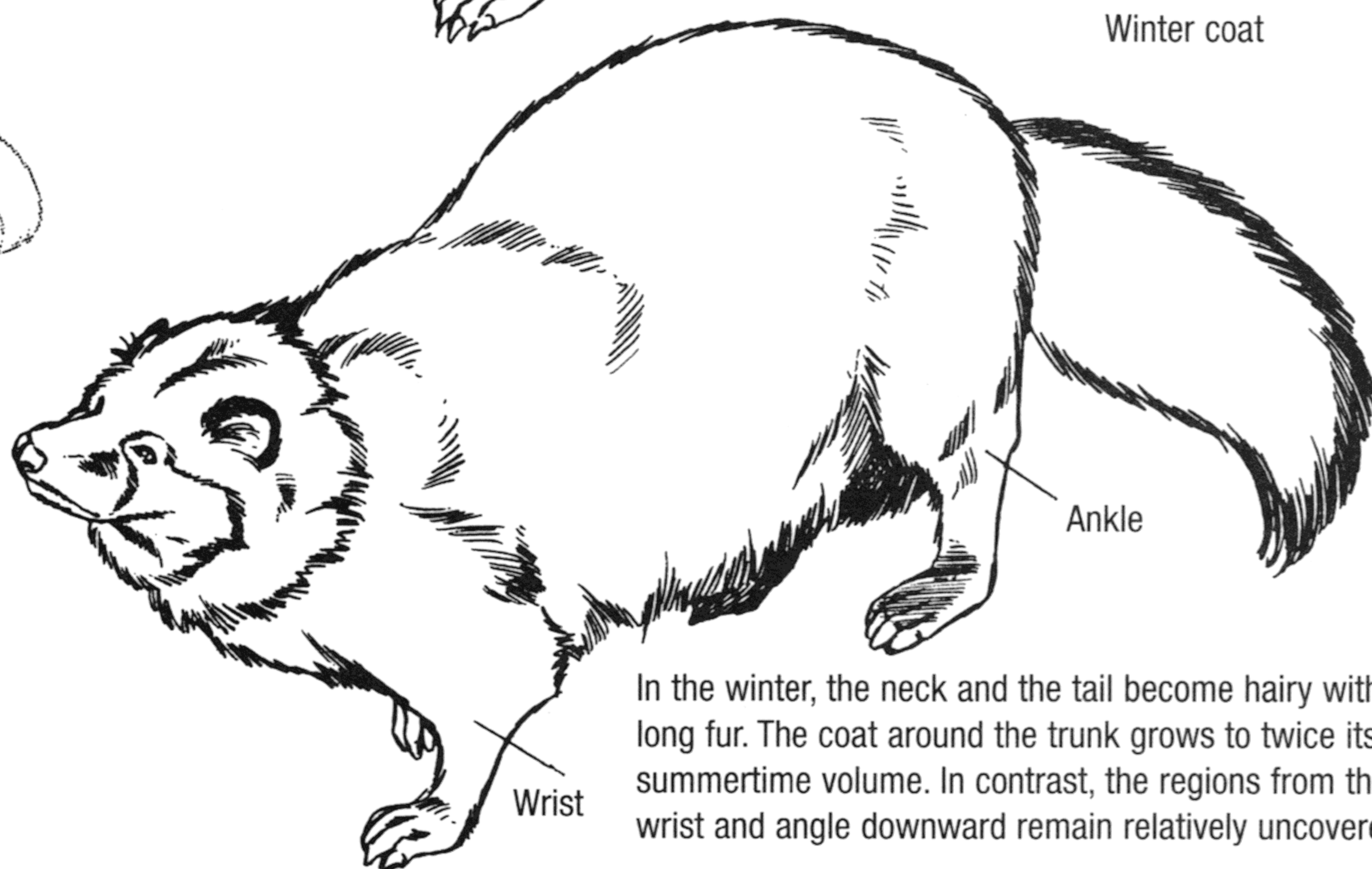
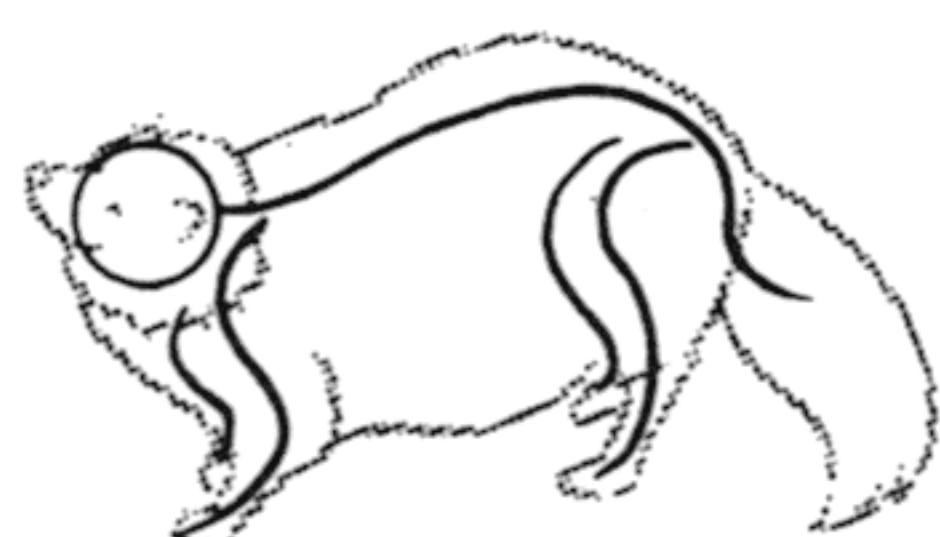
From the front, the raccoon dog has a wide, hexagonal face. The ears are shaped like triangles with rounded points, forming a loop.

1 2

4

1

The tip of the nose, the area surrounding the eyes, and the legs are black. The ears are framed in black as well.

The claws are white.

Summer coat

Winter coat

Ankle

Wrist

In the winter, the neck and the tail become hairy with long fur. The coat around the trunk grows to twice its summertime volume. In contrast, the regions from the wrist and angle downward remain relatively uncovered.

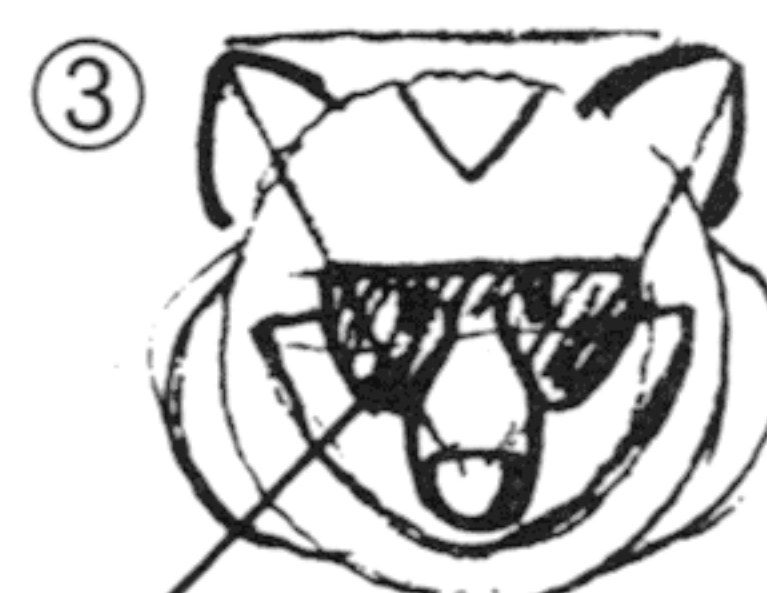
The ears are framed in black.

Use Circles and Triangles for the Face in Front View

①

②

The ears are rounded triangles.

③

The key lies in the line at the top of the nose found between the eyes.

④

For the Profile, Start with a Duck Head

①

②

③

In profile, the ears' contours take on a semicircular shape.

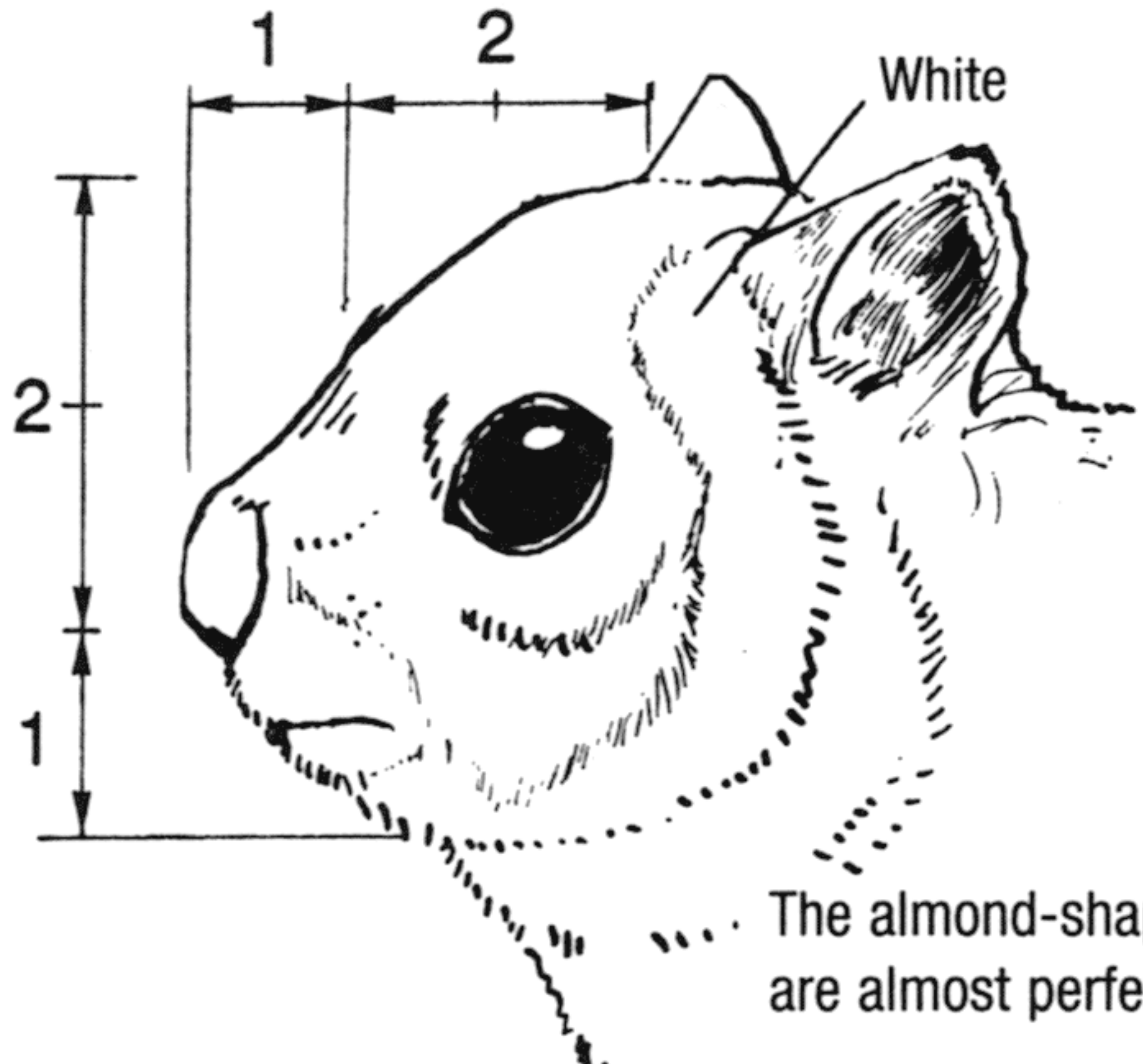
④

Giant Flying Squirrel

Also known as a taguan, picture an over-sized mouse when drawing the giant flying squirrel. I recommend drawing the eyes about the same size as the nose.

1 2

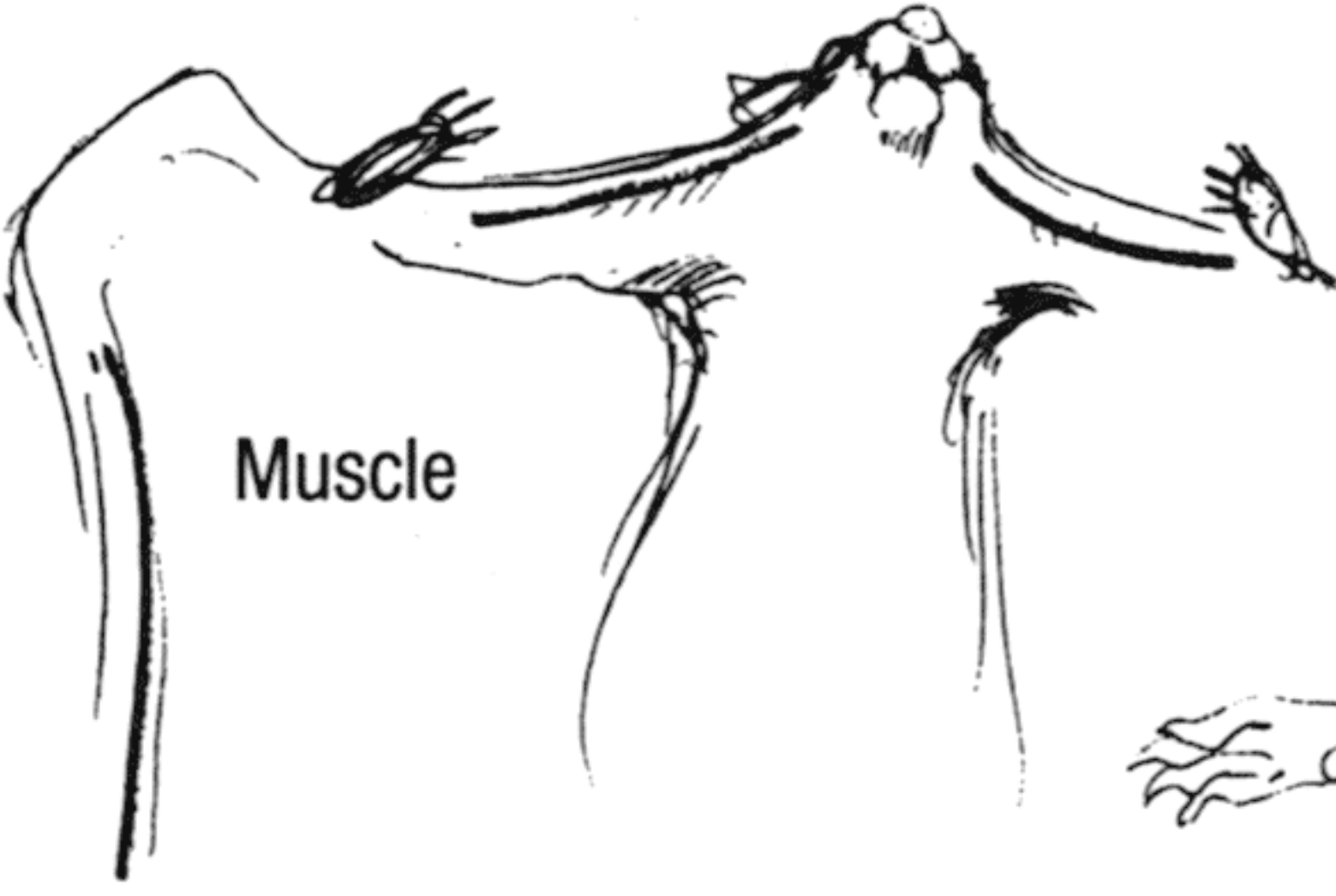
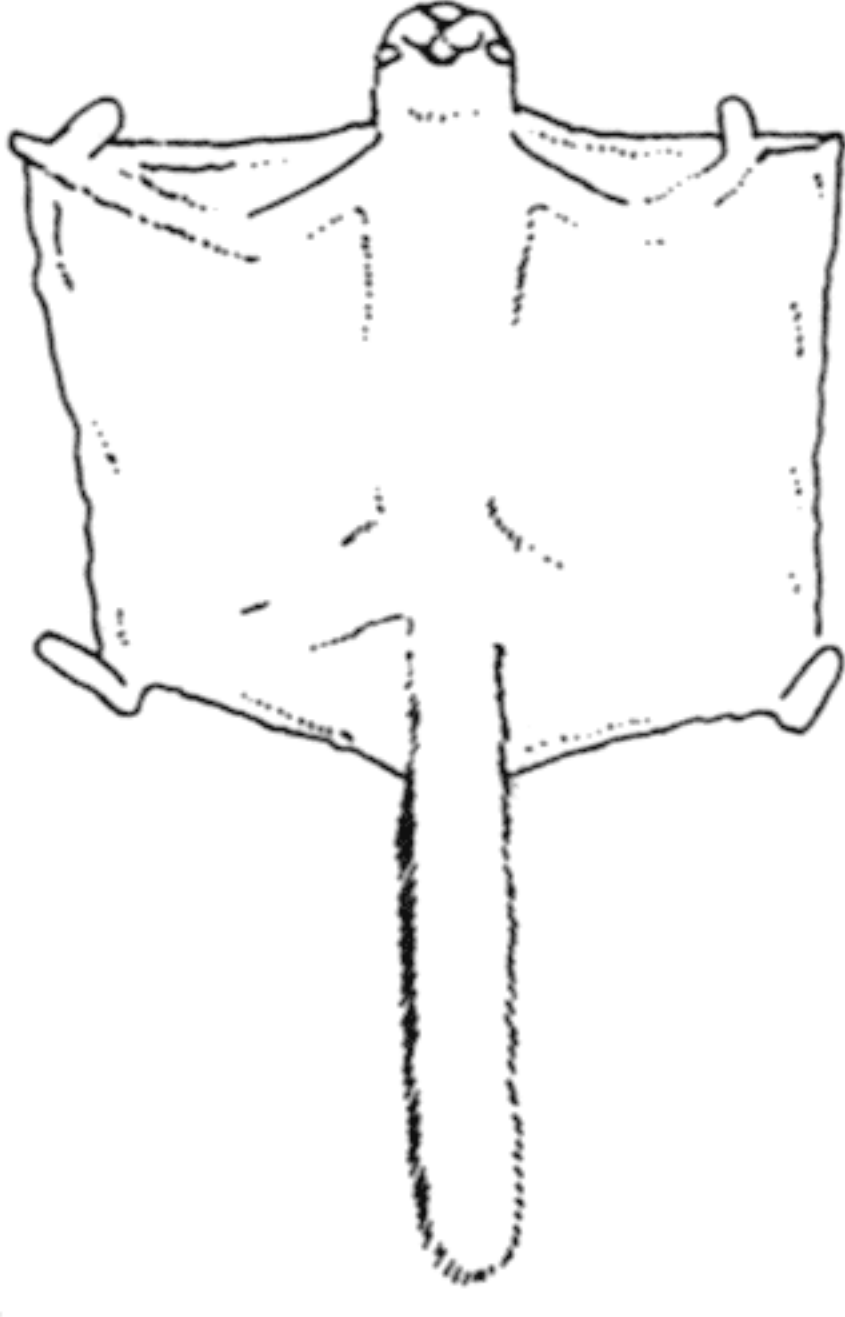
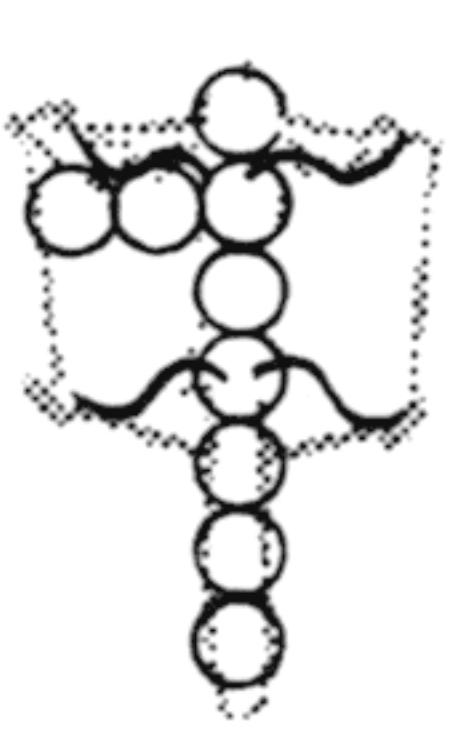
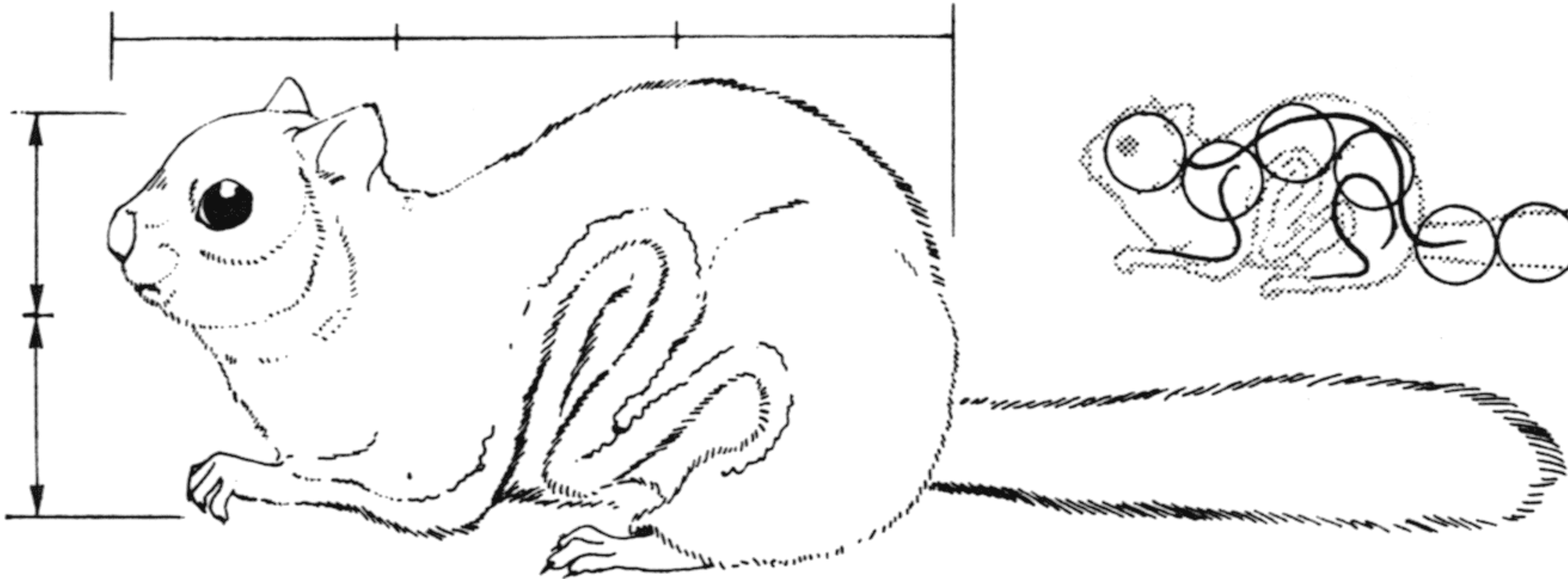
2

1

White

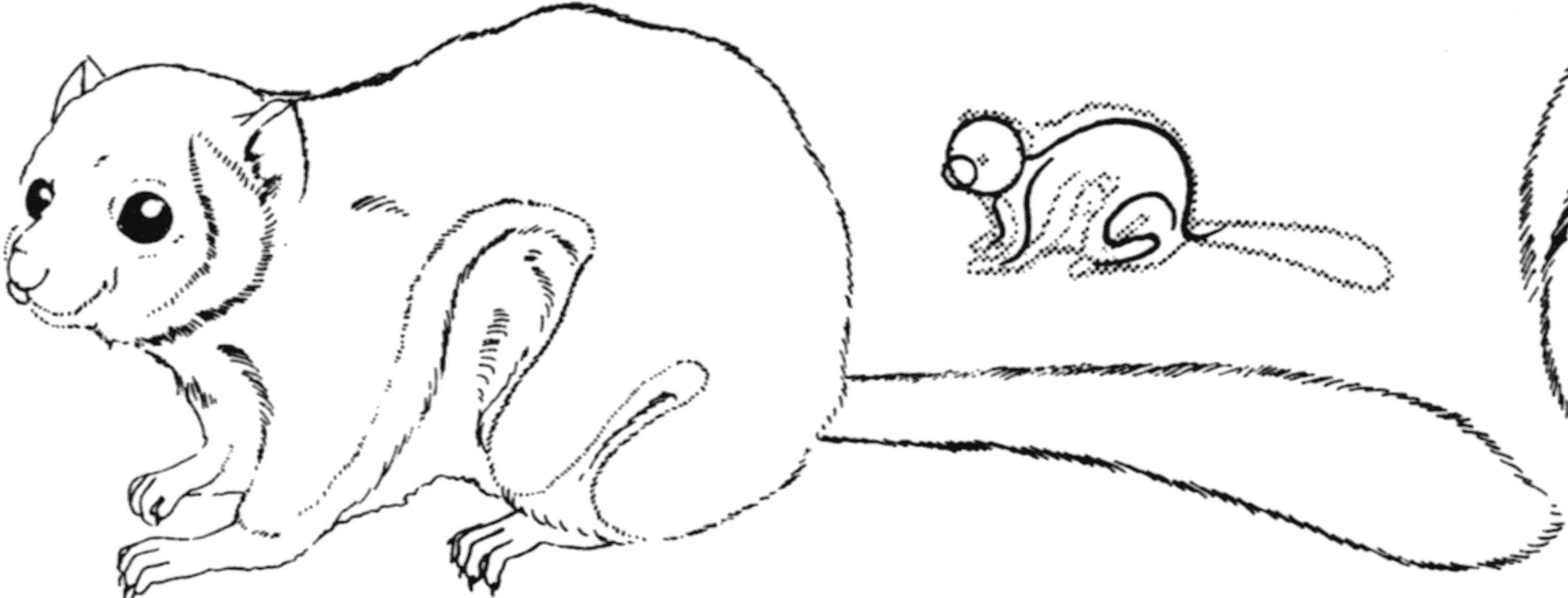
The almond-shaped eyes are almost perfectly round.

White

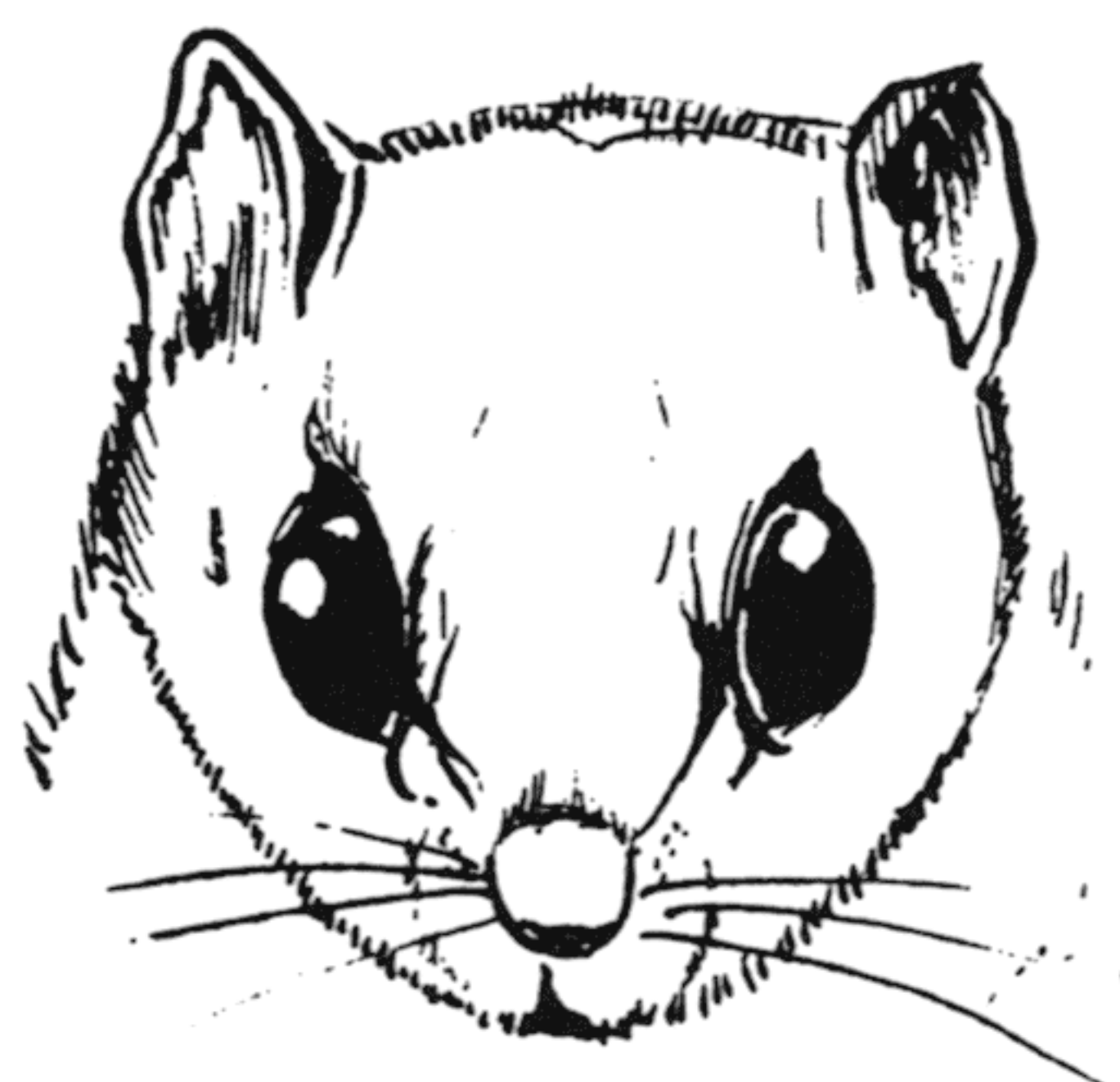
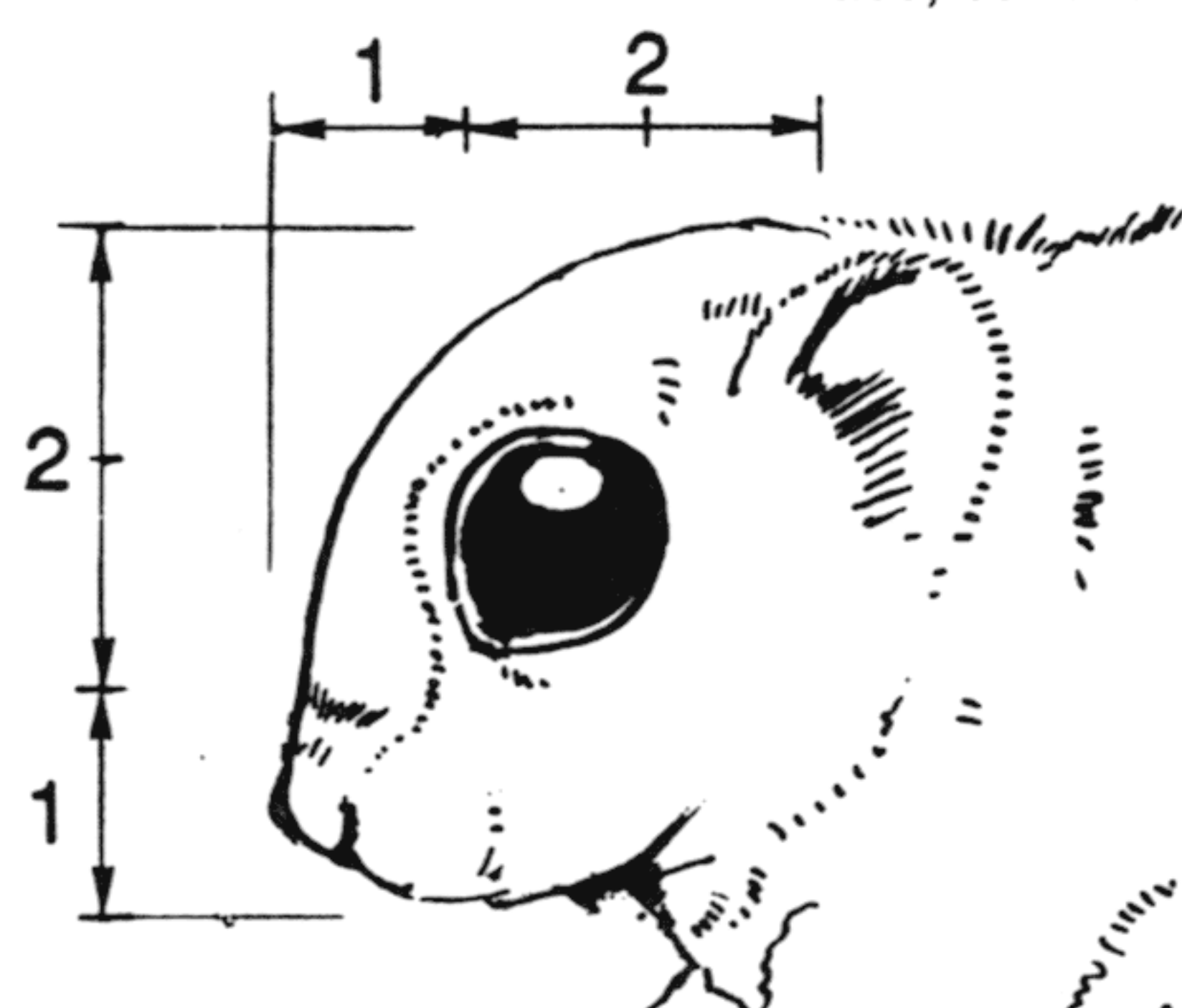
A band of white surrounds the head from the throat to above the eyes.

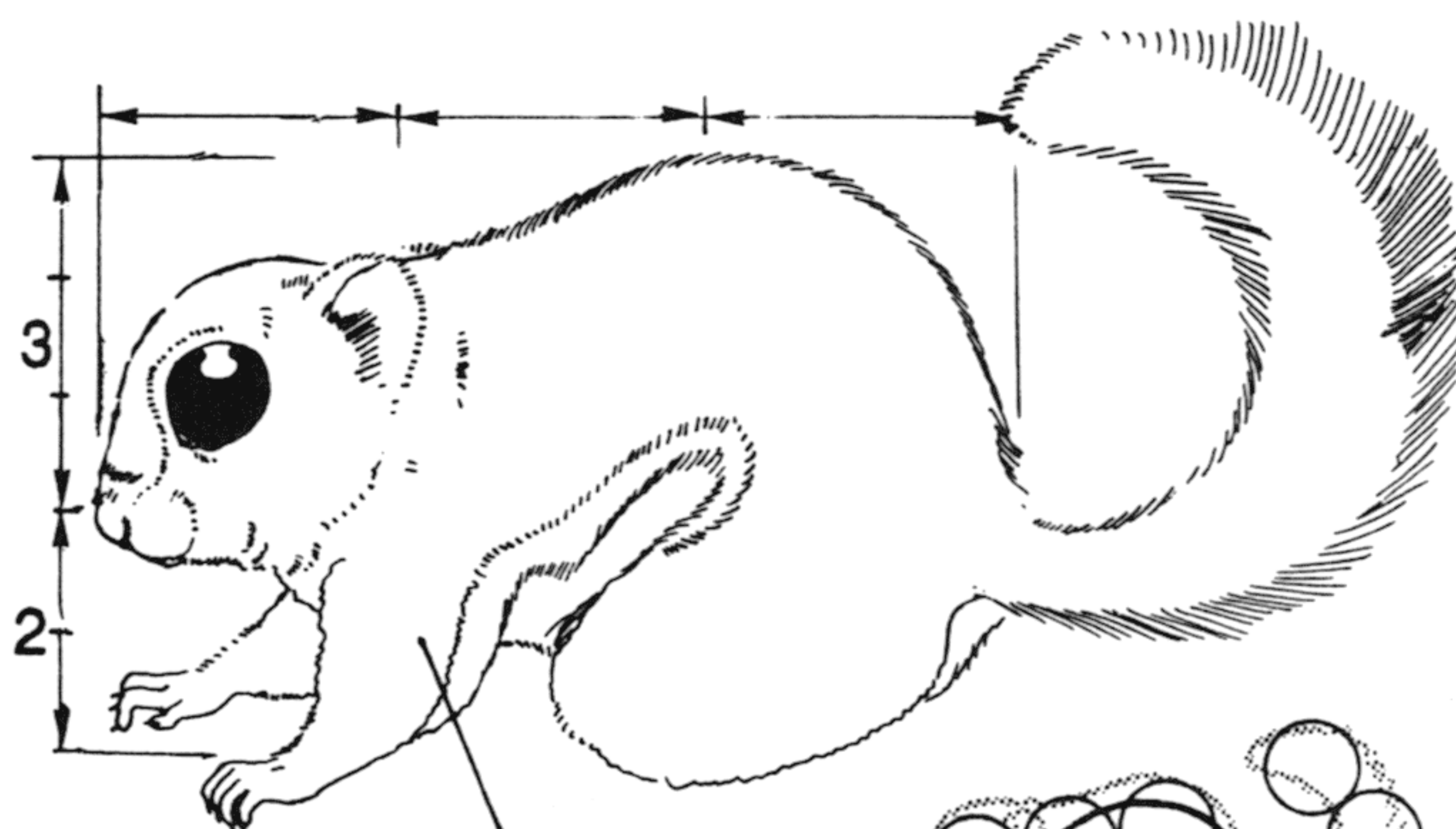
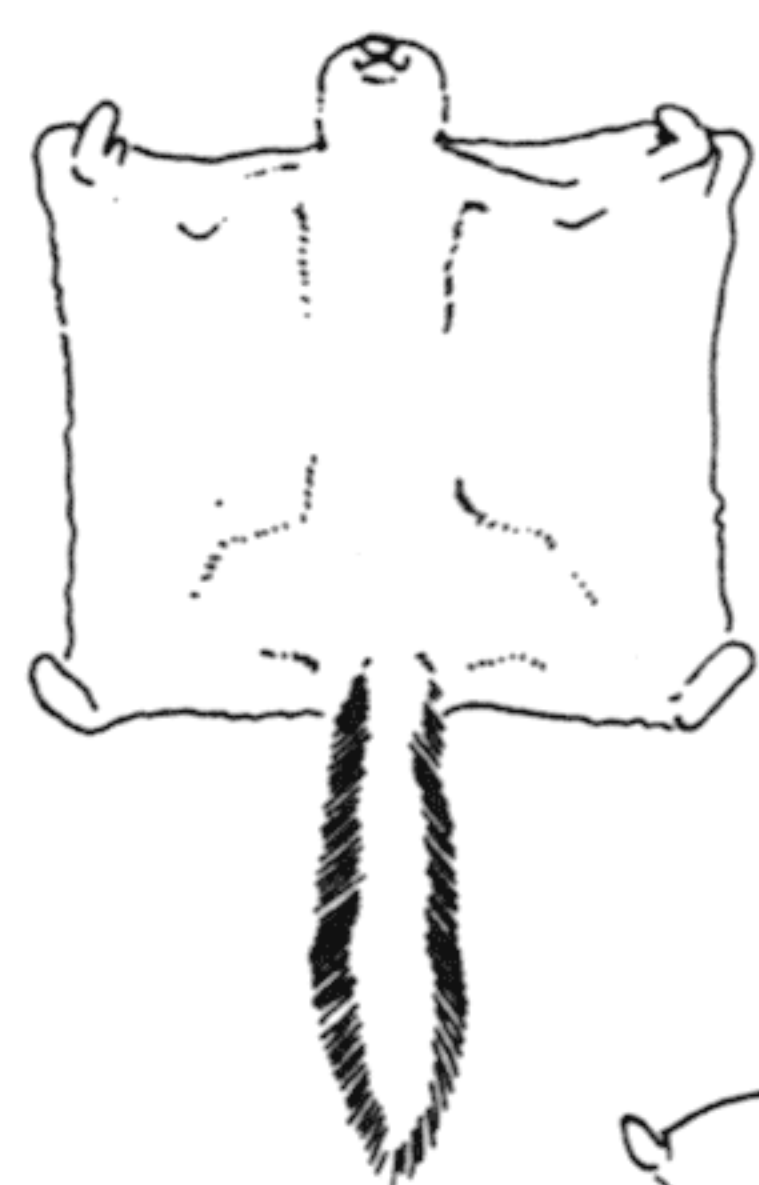
The eyes bulge out, making them appear to slant upward from a front view.

The flying squirrel has skin membranes between its fore and hind legs just like those of a bat.

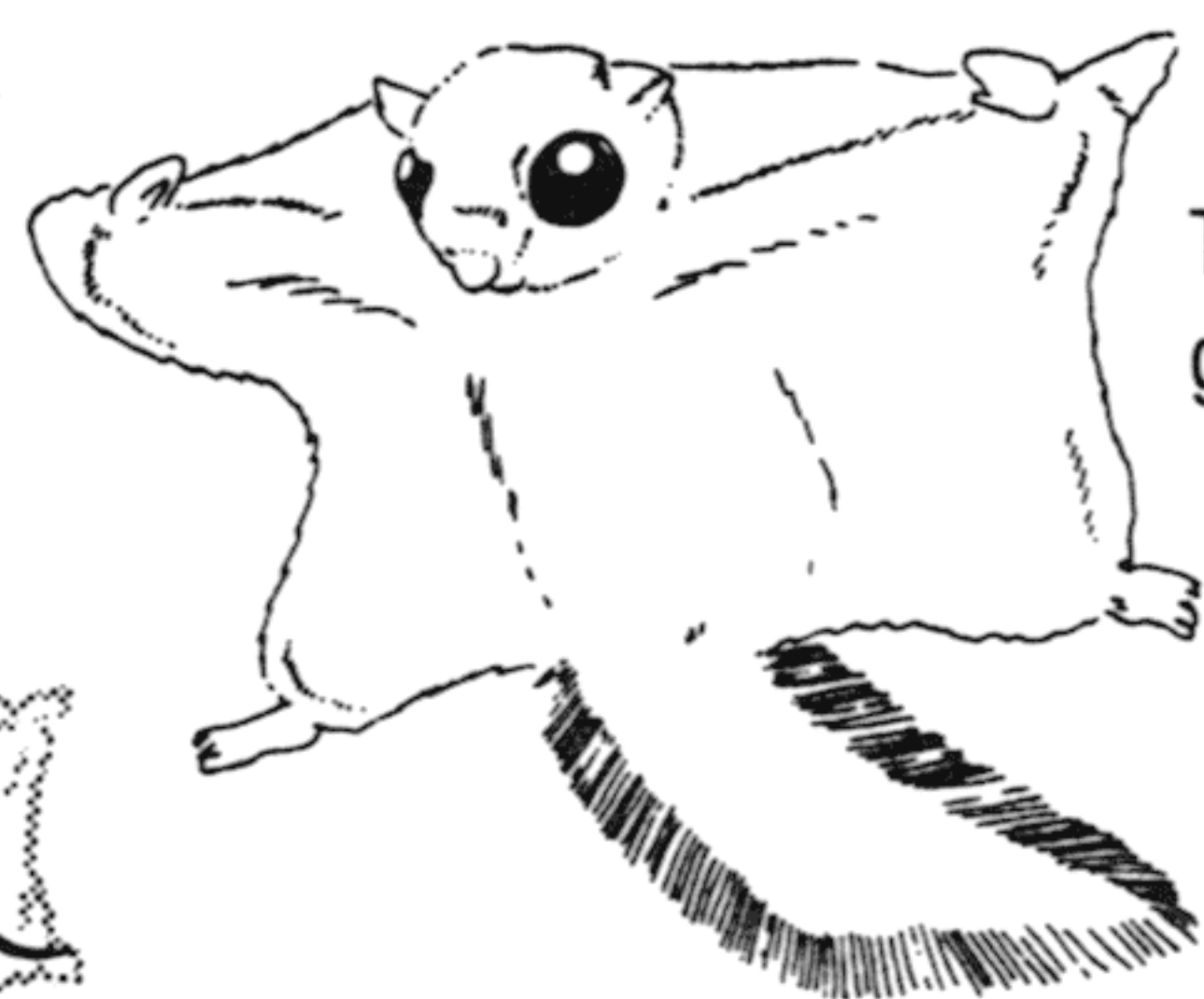
Muscle

When depicting the flying squirrel gliding, use diagonal hatched lines to suggest fur pushed back by the breeze.

Flying Squirrel

The flying squirrel is tiny, measuring at around 15 cm (approx. 6"), about 1/3 the size of a giant flying squirrel. To draw a convincing flying squirrel, give it a rodent's face, but with eyes about three times the size of those found on a mouse.

1 2
2
1

Take careful note that while the eyes form almost perfect circles from the side, from a front view, they are vertically oblong.

3
2

The forelegs appear thick owing to the skin membrane used for gliding.

The flying squirrel can flip its tail, which is bushier than that of the giant flying squirrel, over its back or curl it over its upper body.

The tail is flat.

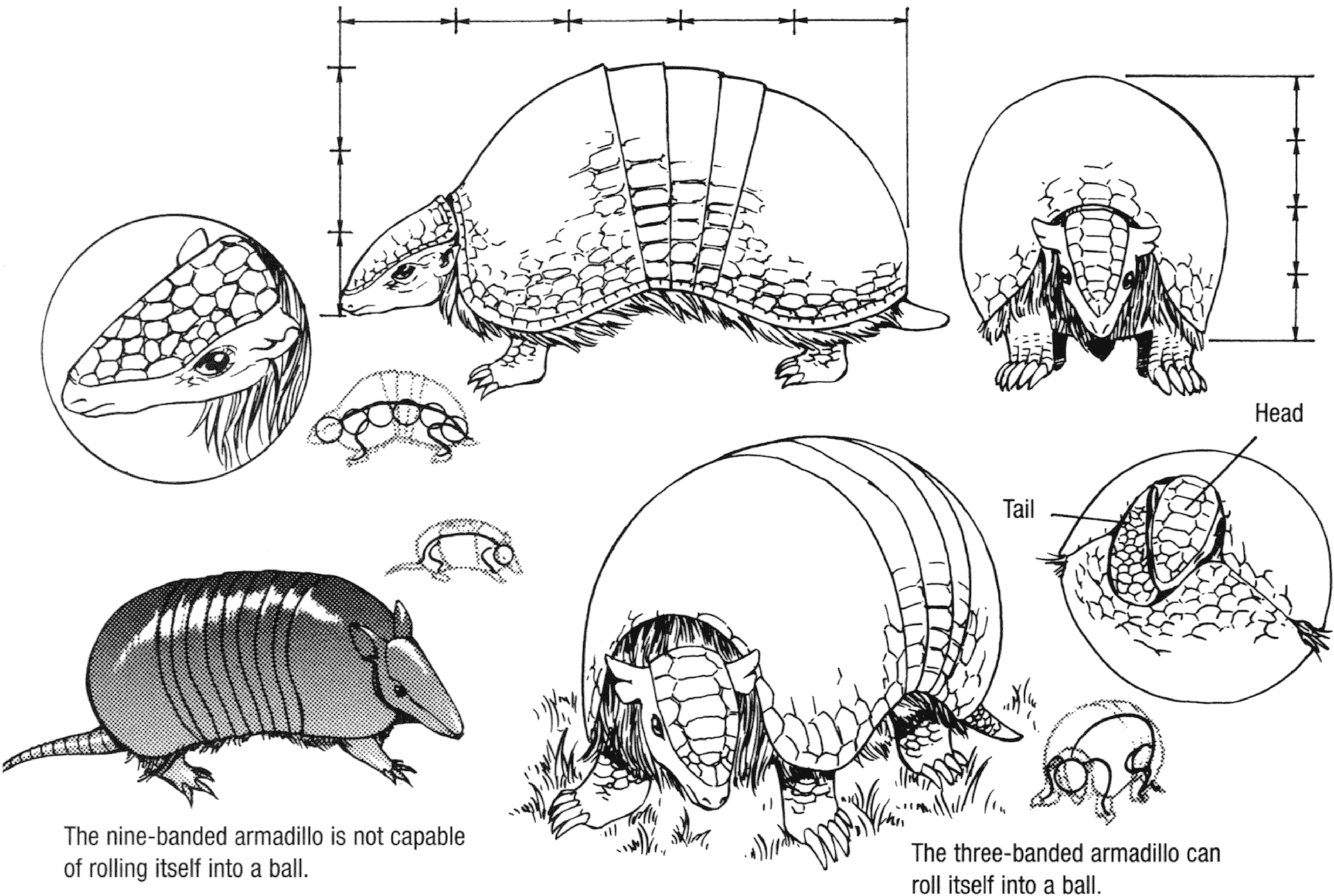
Armadillos

The three-banded armadillo is the only able to roll itself up into a ball. None of the other armadillo species are capable of this feat.

Head

Tail

The nine-banded armadillo is not capable of rolling itself into a ball.

The three-banded armadillo can roll itself into a ball.

Tapirs

The tapir's legs are about as long as the trunk is tall. The nose wiggles.

The nose bends.

The hind feet have three toes each.

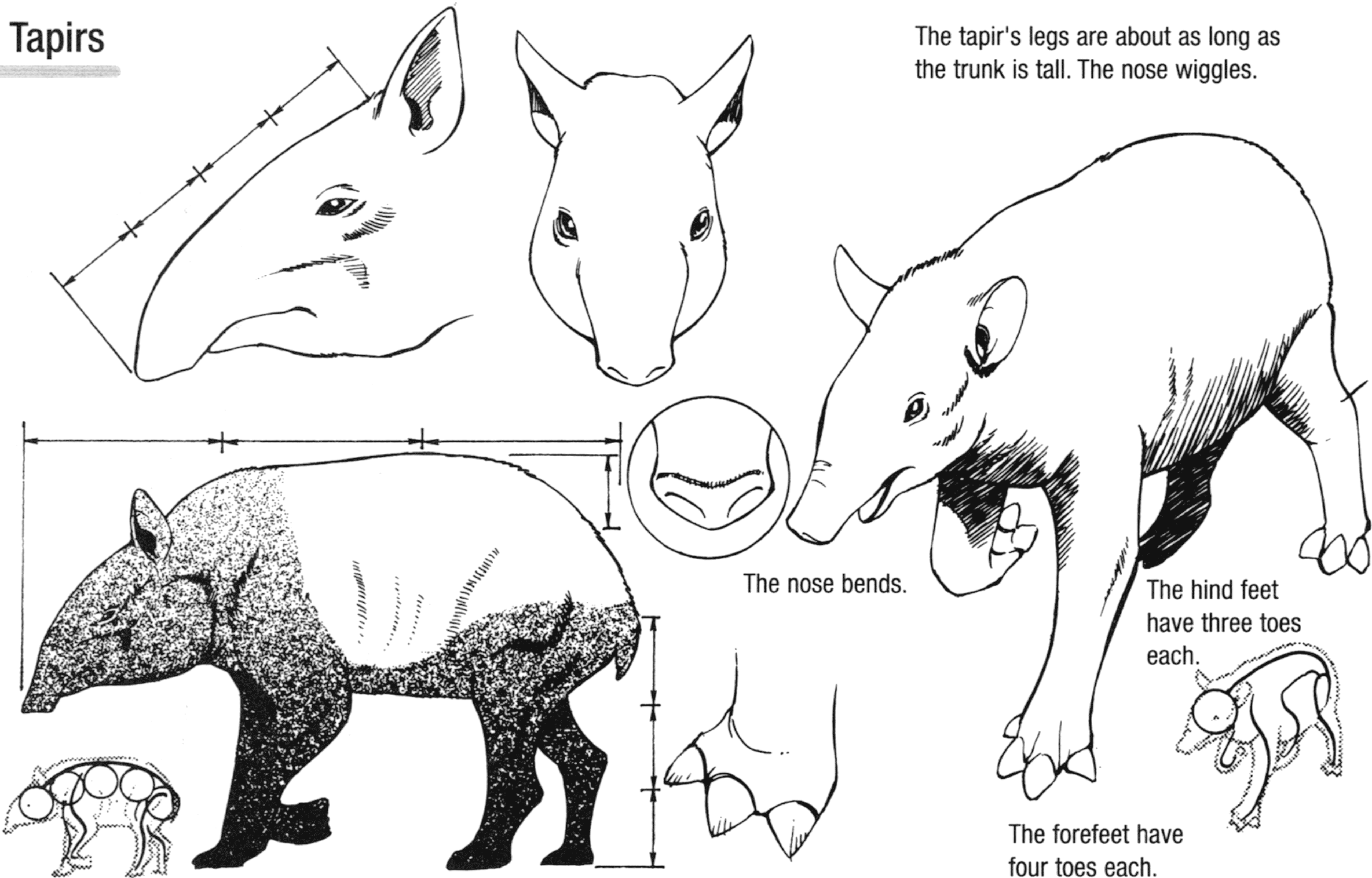
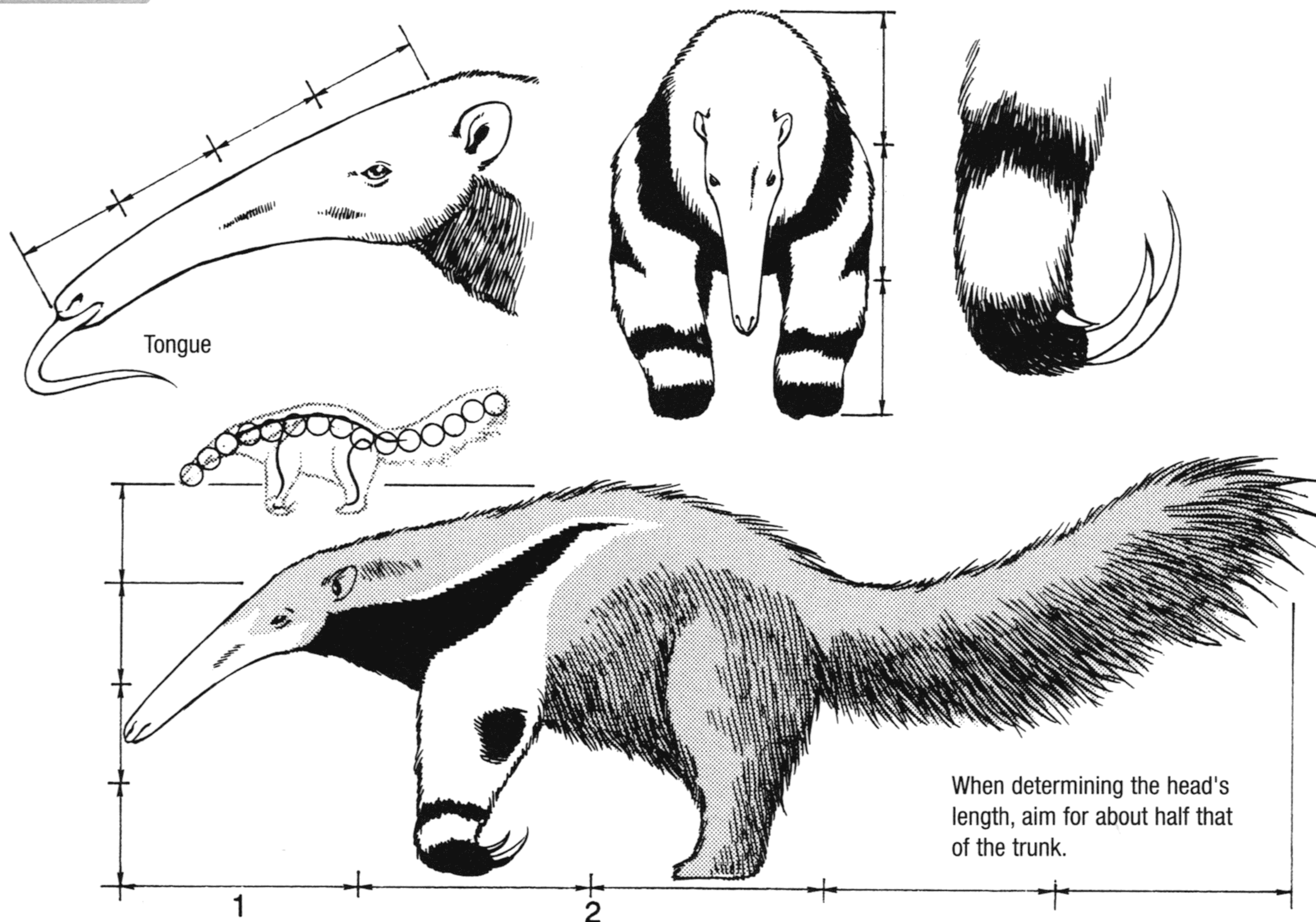
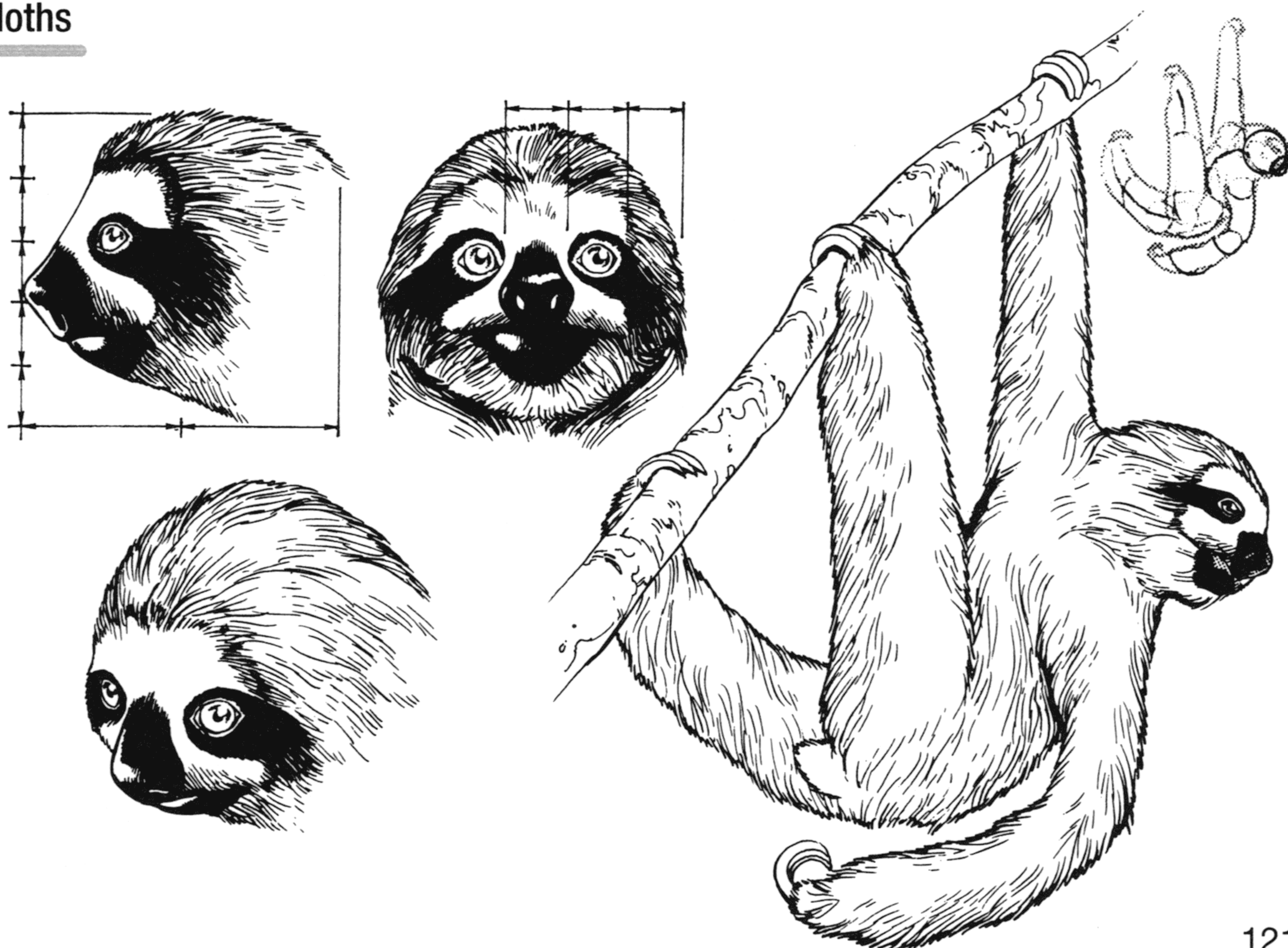
The forefeet have four toes each.

Anteaters

Tongue

1

2

When determining the head's length, aim for about half that of the trunk.

Sloths

River Otters

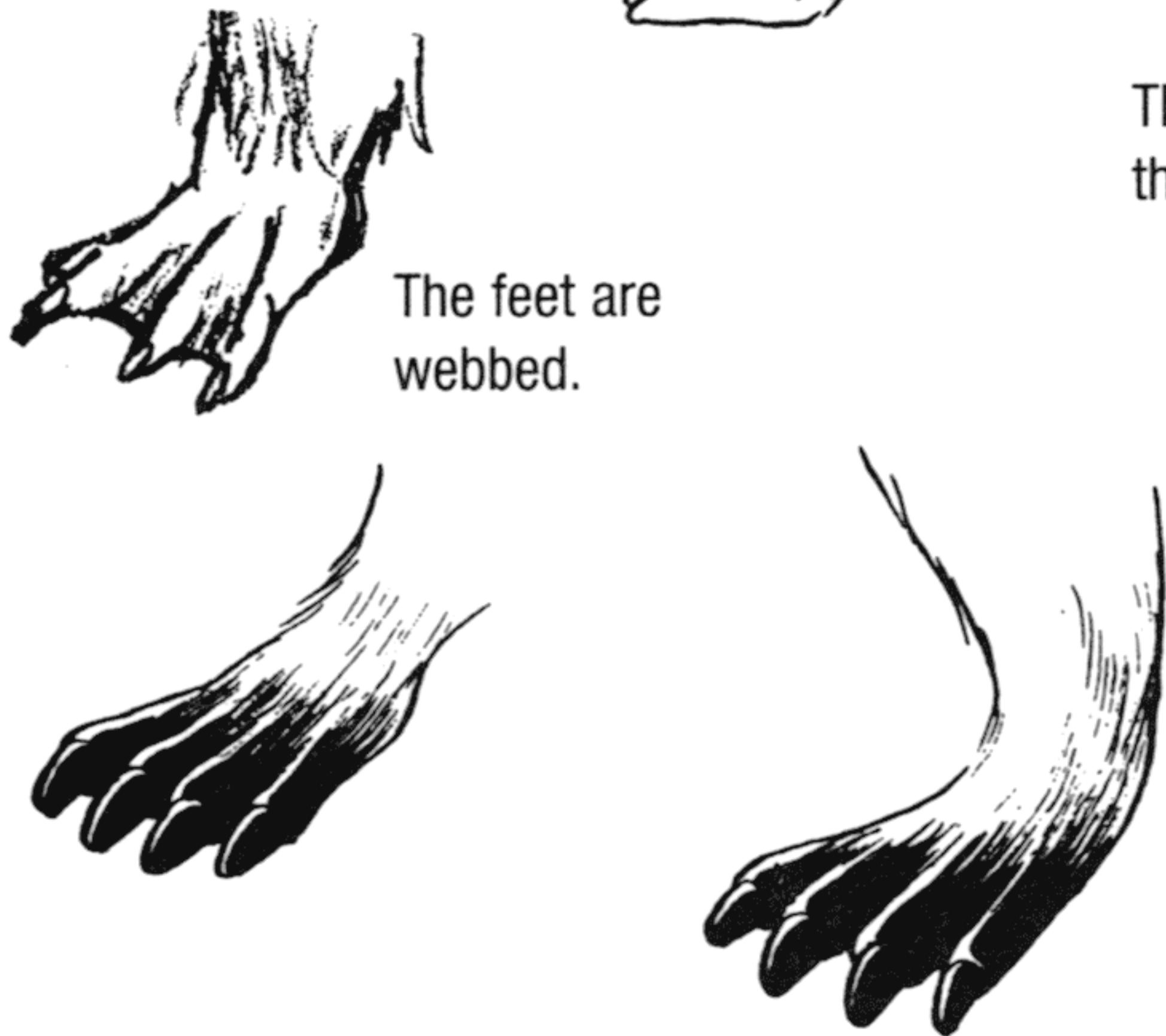
The head is streamlined. I recommend using sinuous lines for the entire body.

1

5

1

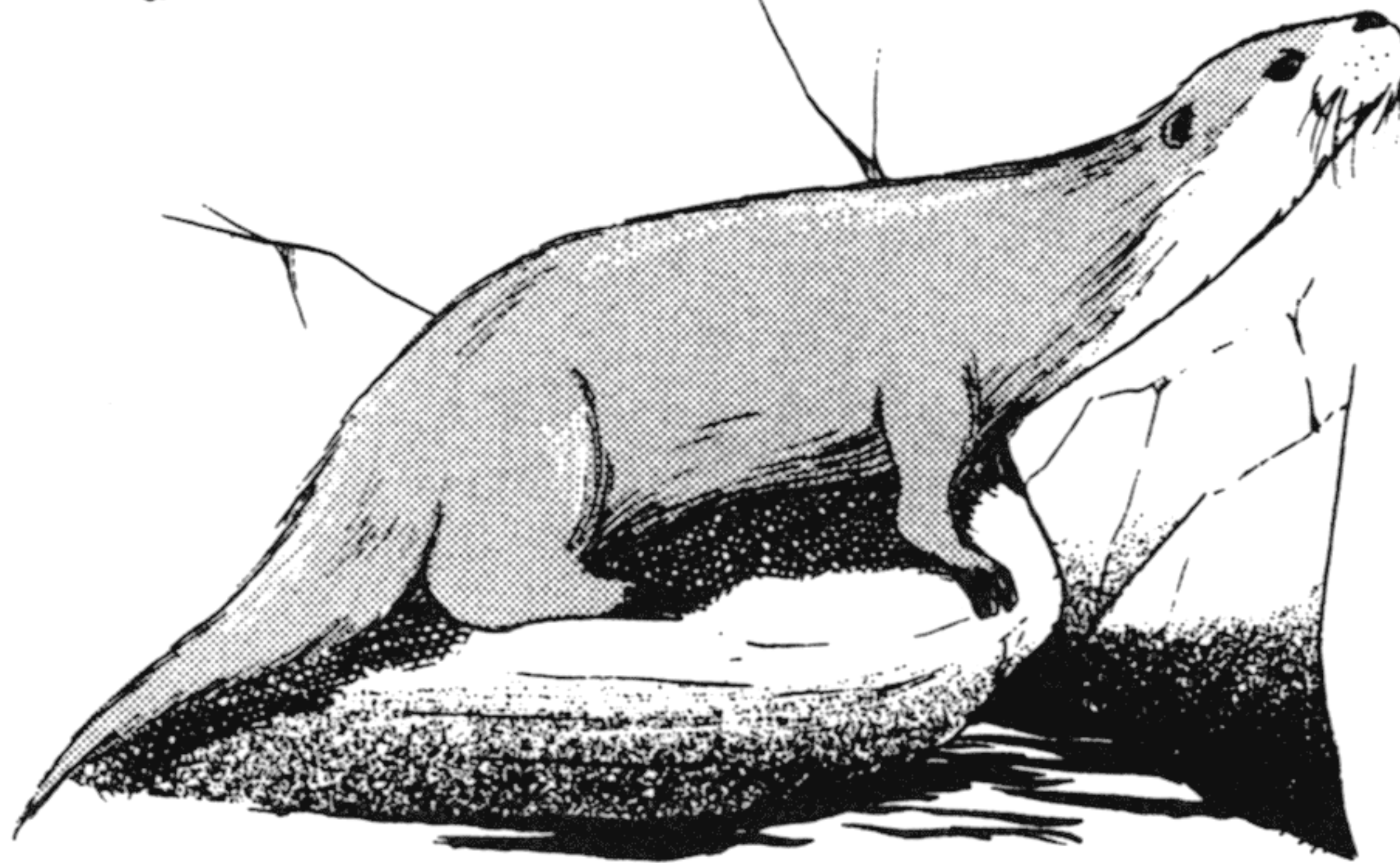
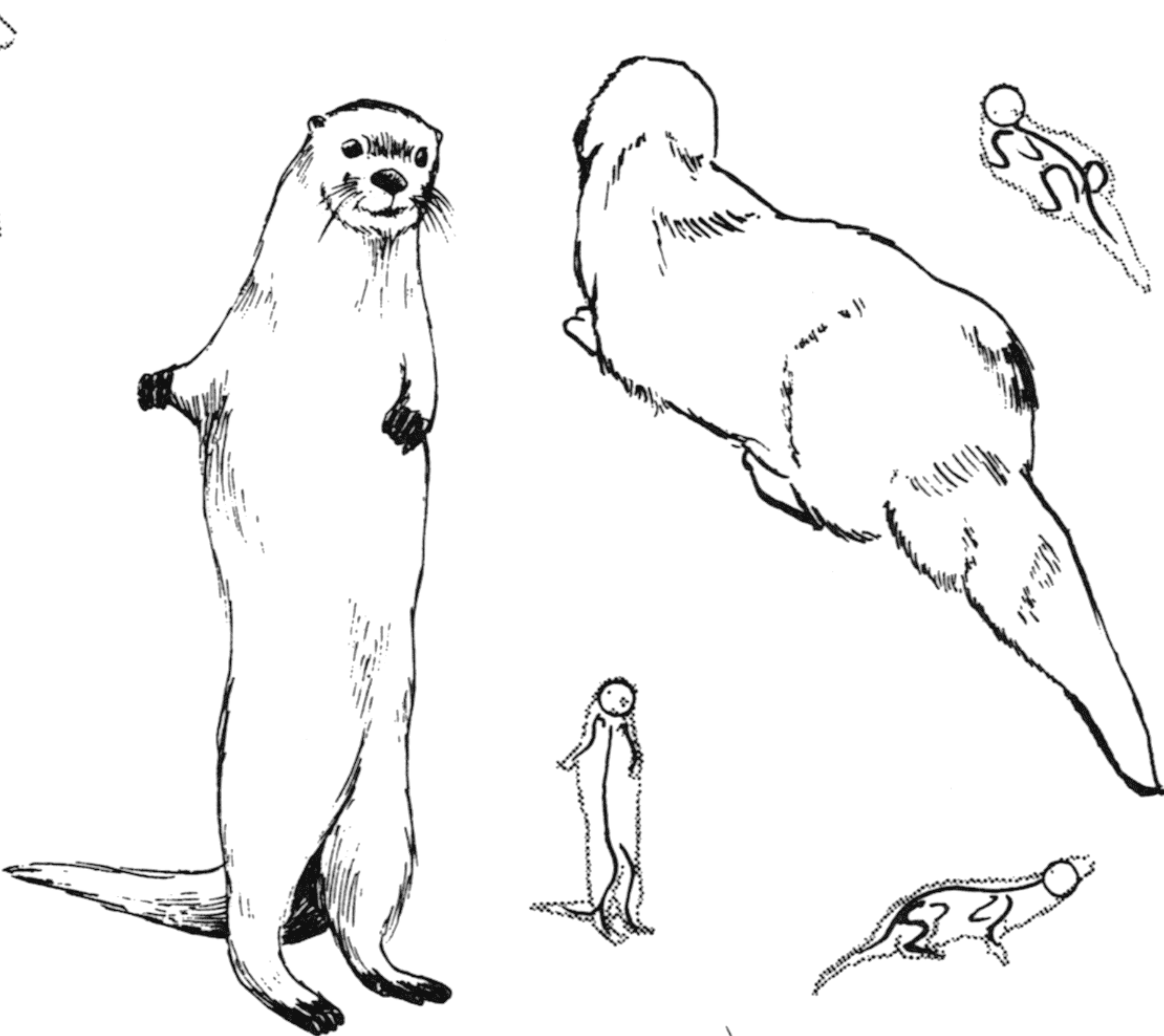
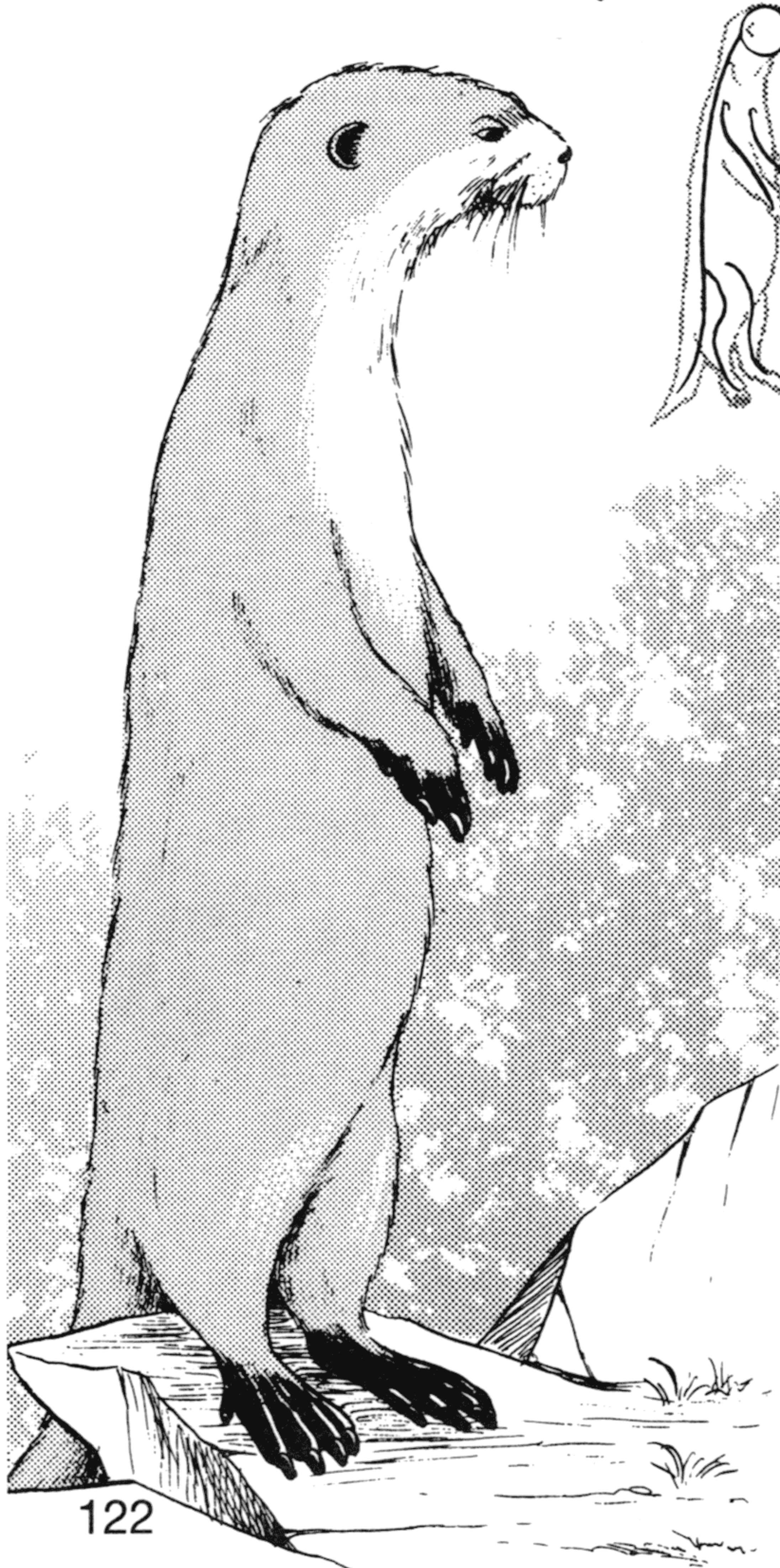
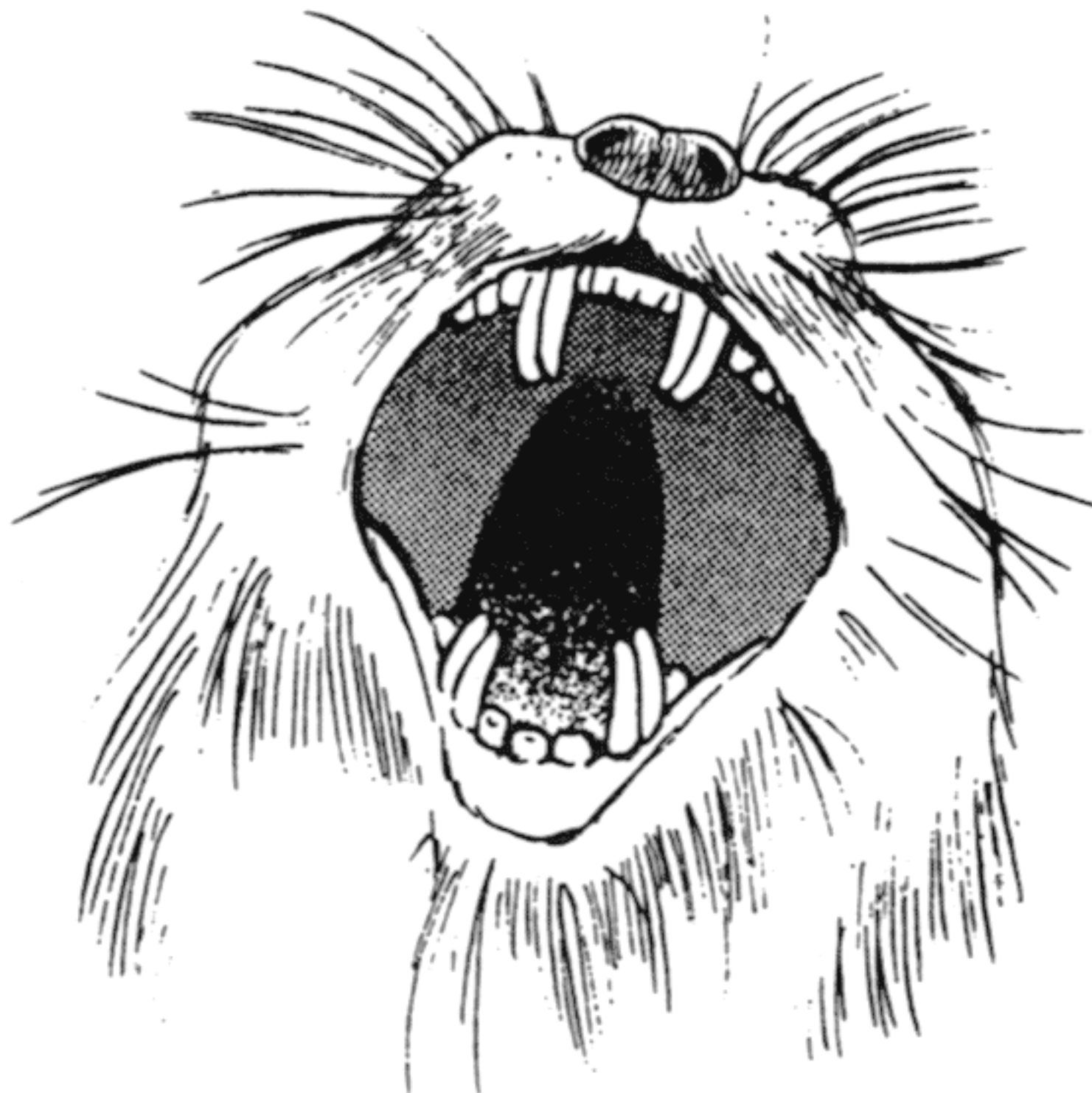
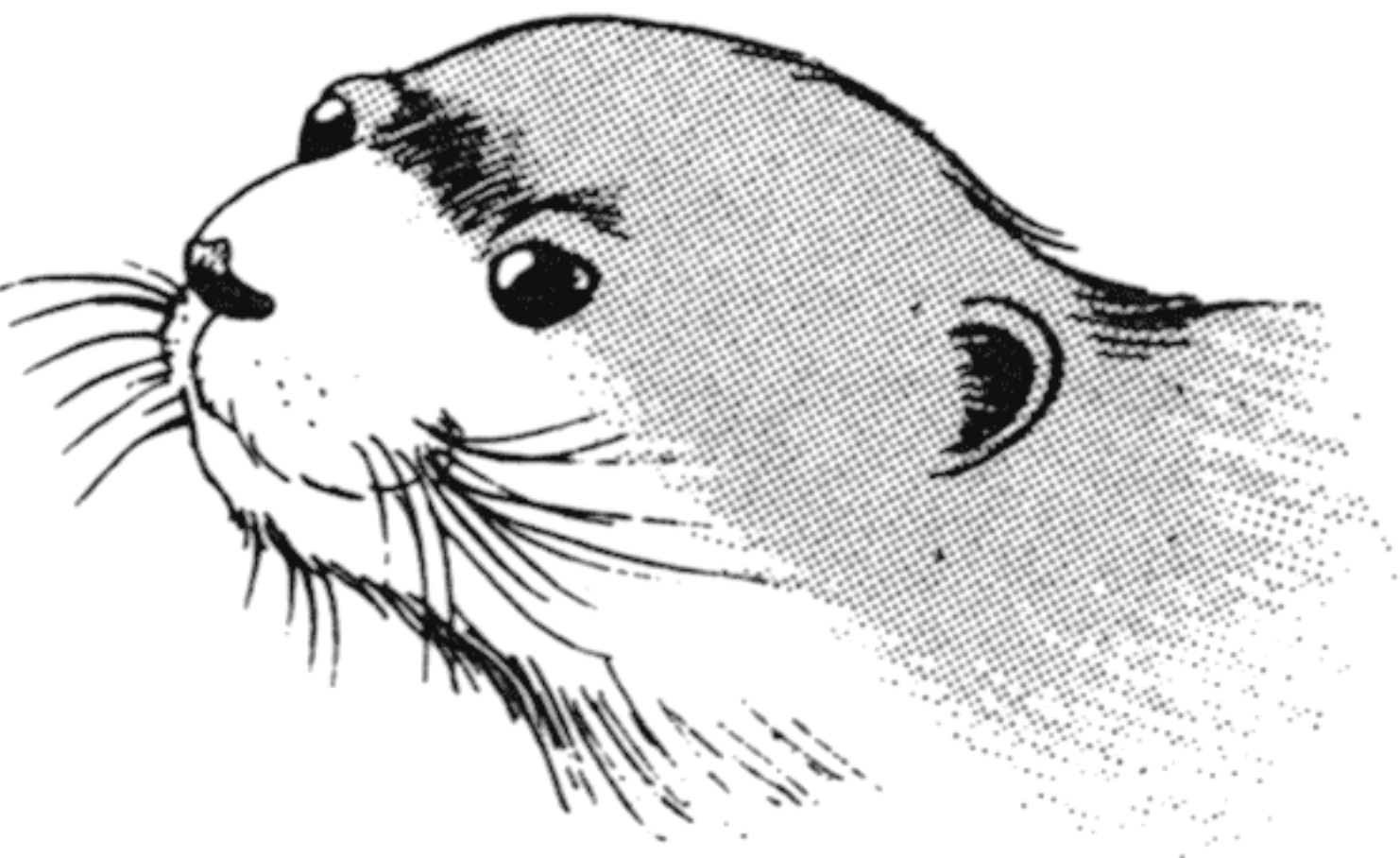
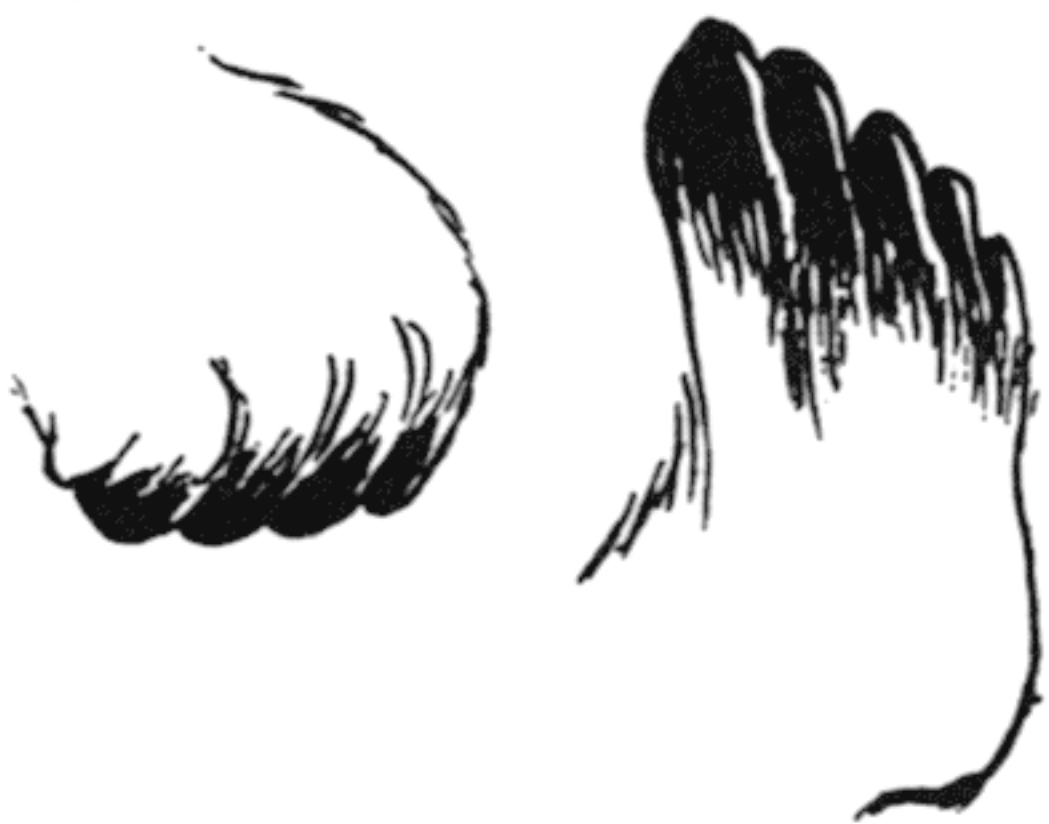
2

The eyes are spaced far apart.

The tail has a thick base, which is about the same girth as the head and neck.

The feet are webbed.

Sea Otter

3

2

The paws' digits are barely noticeable. The front paws resemble flat mittens.

The sea otter's feet are webbed, and the legs are shaped like flippers.

1

3

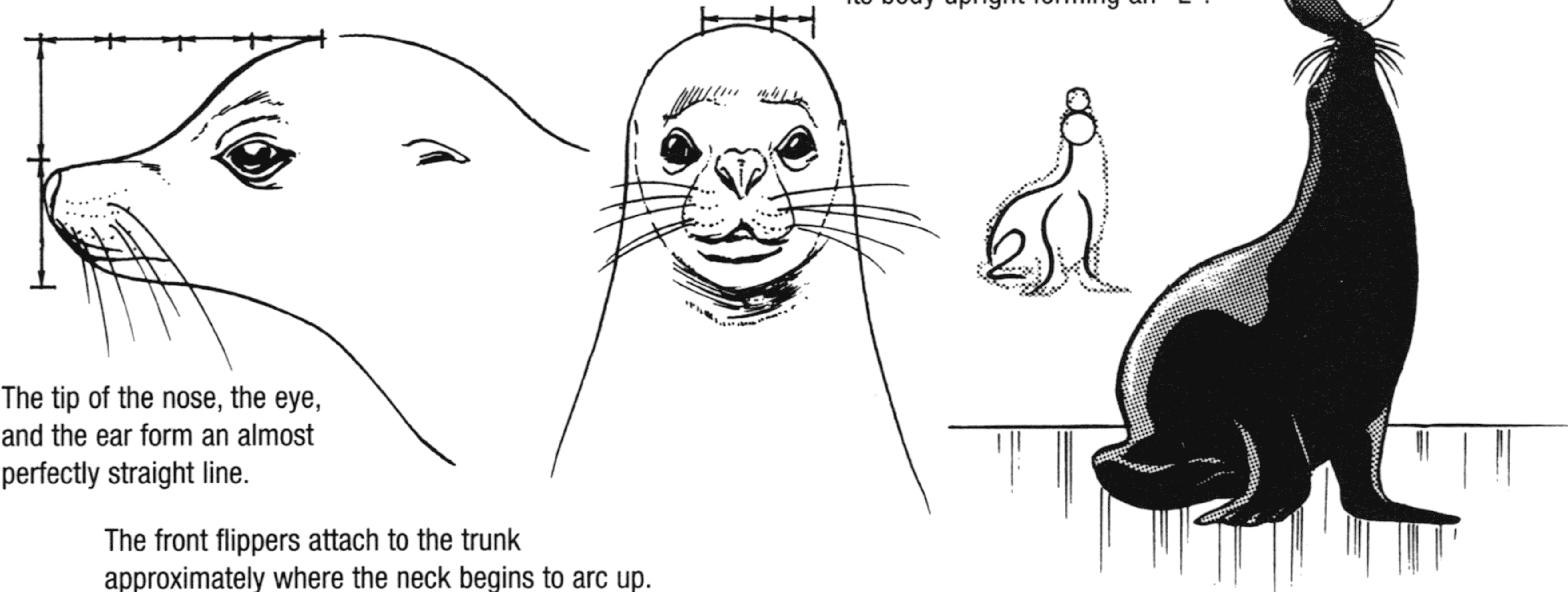
The sea otter dolphins through the water, without using its feet.

The legs are virtually the same length as the head.

The flat tail is twice as long as the legs.

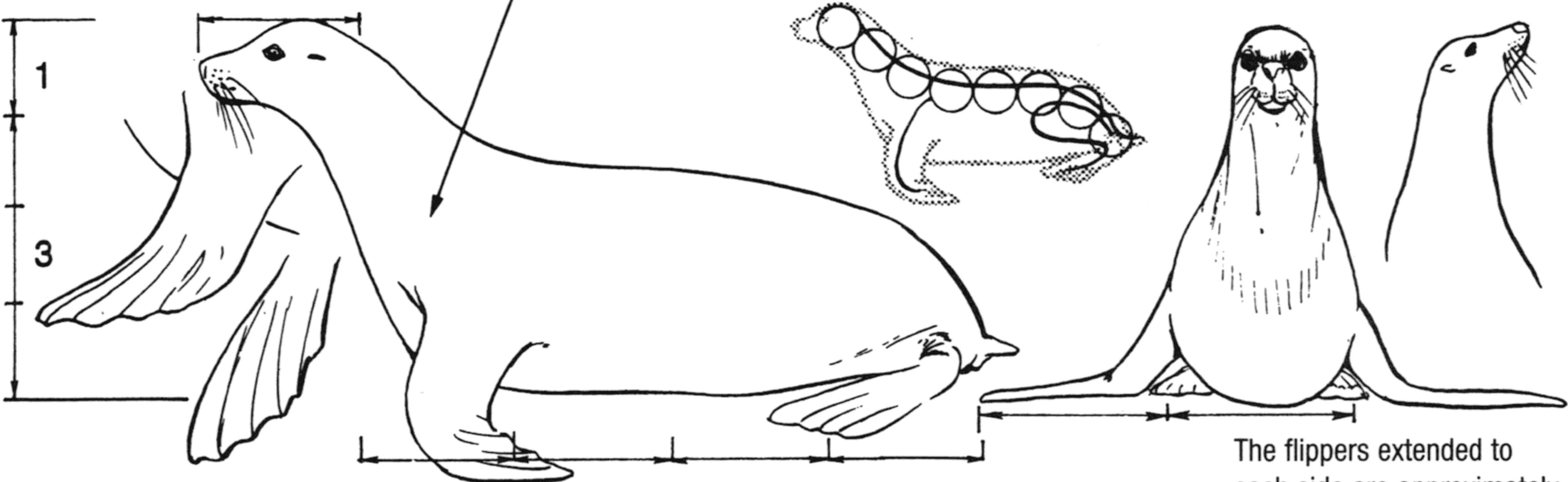
The sea otter sports a hairy coat.

Sea Lions

The hind flippers fold forward, allowing the sea lion to straighten its body upright forming an "L".

The tip of the nose, the eye, and the ear form an almost perfectly straight line.

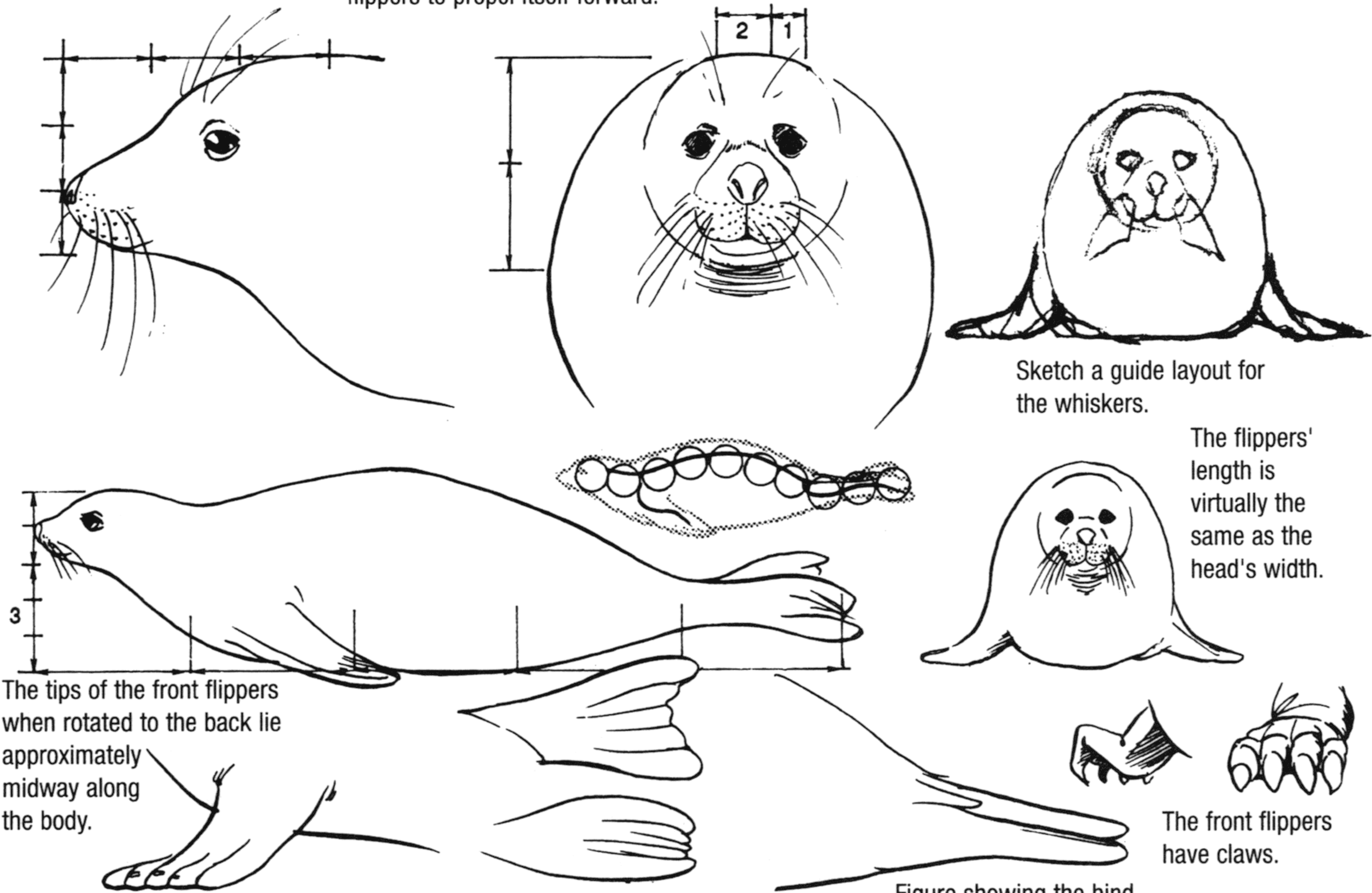
The front flippers attach to the trunk approximately where the neck begins to arc up.

1

3

The flippers extended to each side are approximately as long as the trunk's width.

The hind flippers do not fold forward, meaning that the seal is permanently in a reclining position and is only able to use its front flippers to propel itself forward.

Seals

2 1

Sketch a guide layout for the whiskers.

The flippers' length is virtually the same as the head's width.

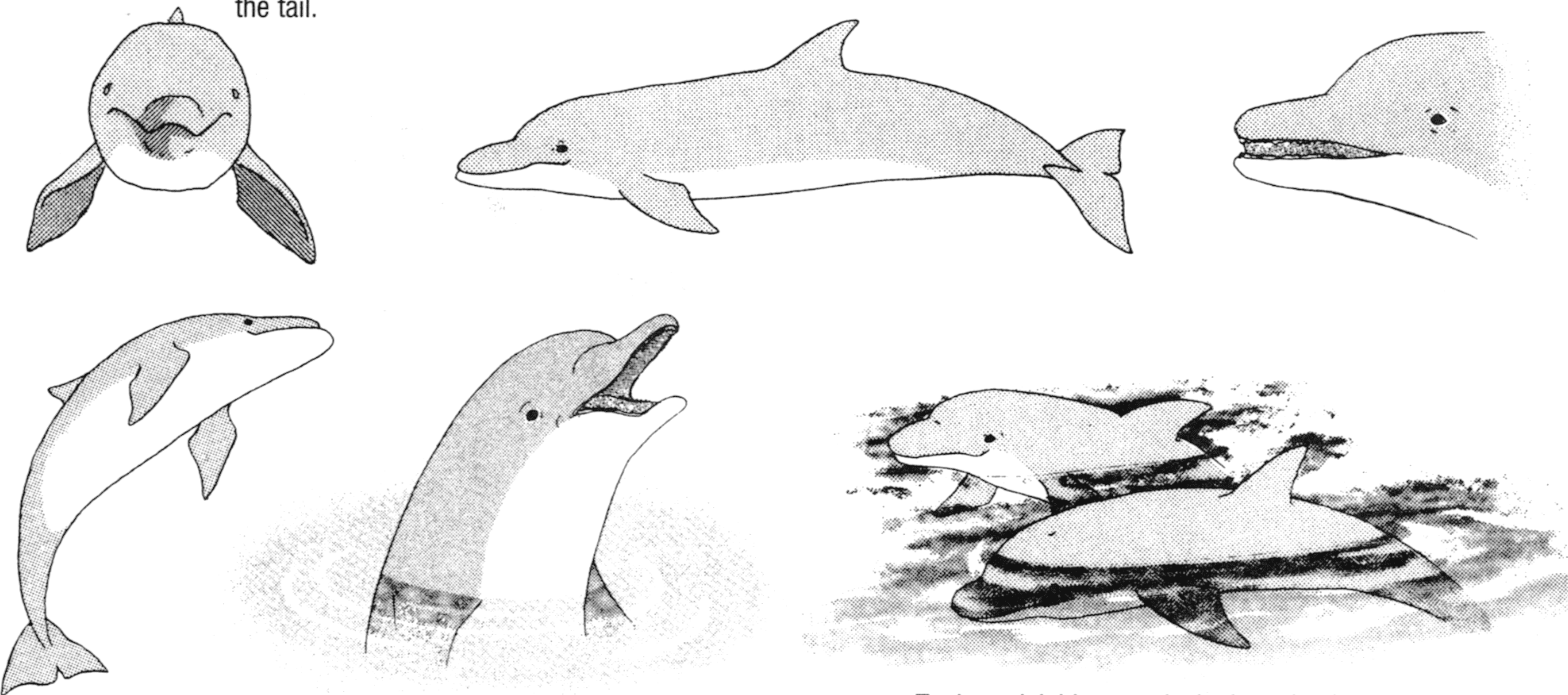
3

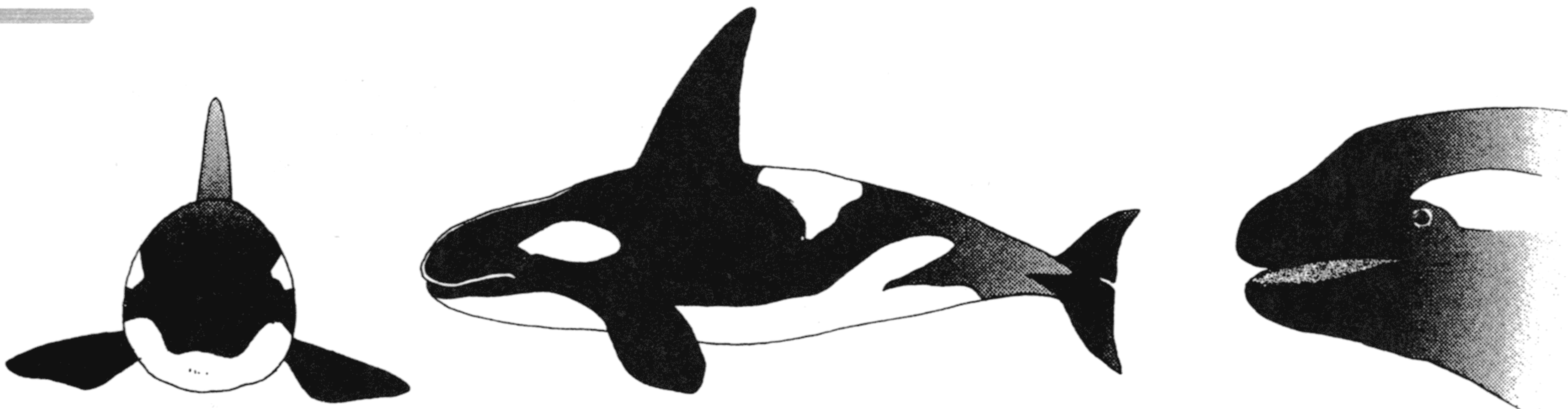
The tips of the front flippers when rotated to the back lie approximately midway along the body.

The front flippers have claws.

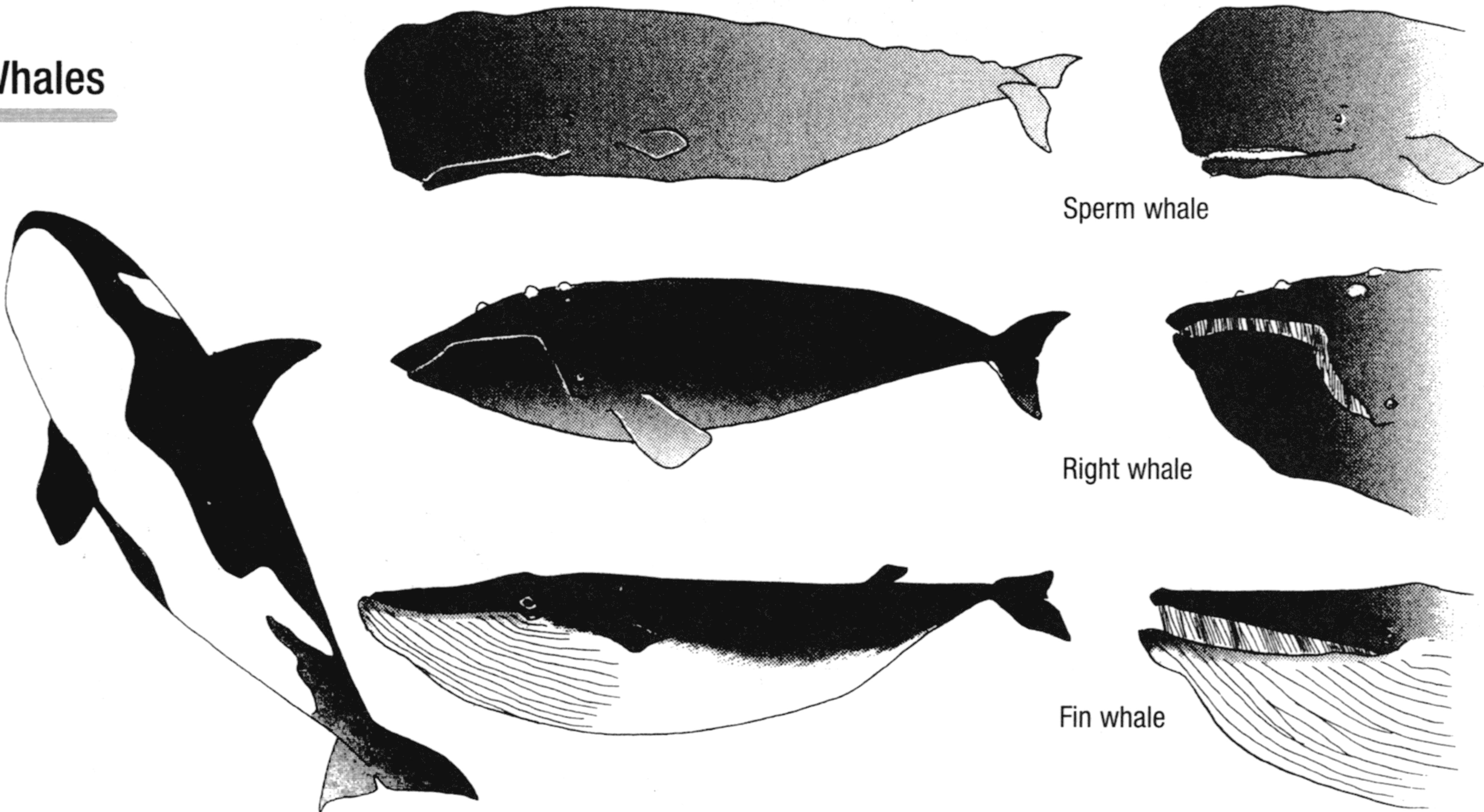
Figure showing the hind flippers brought together

Dolphins

The key point to the dolphin is the arc extending from the dorsal fin to the tail.

To draw dolphins convincingly maintain a visual image of a bow when drawing the body.

Orcas

The orca has a chubby, streamlined body, which is equal in height to its tall dorsal fin.

Position the pectoral fins lower than the eyes and the tailfin above the eyes.

Whales

Sperm whale

Right whale

Fin whale

Rays

Rays are flat, rhomboid-shaped animals.

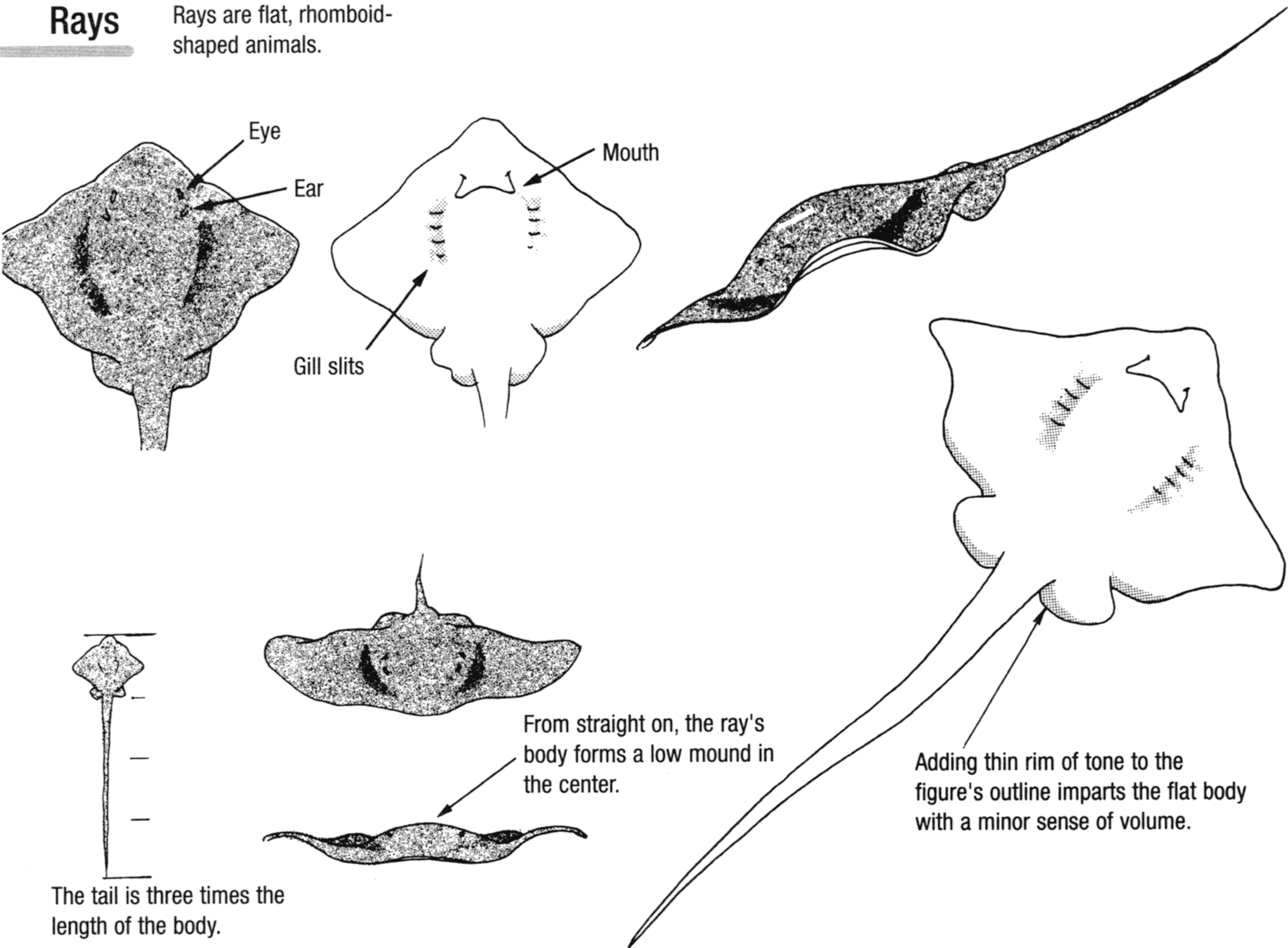
Eye

Ear

Mouth

Gill slits

From straight on, the ray's body forms a low mound in the center.

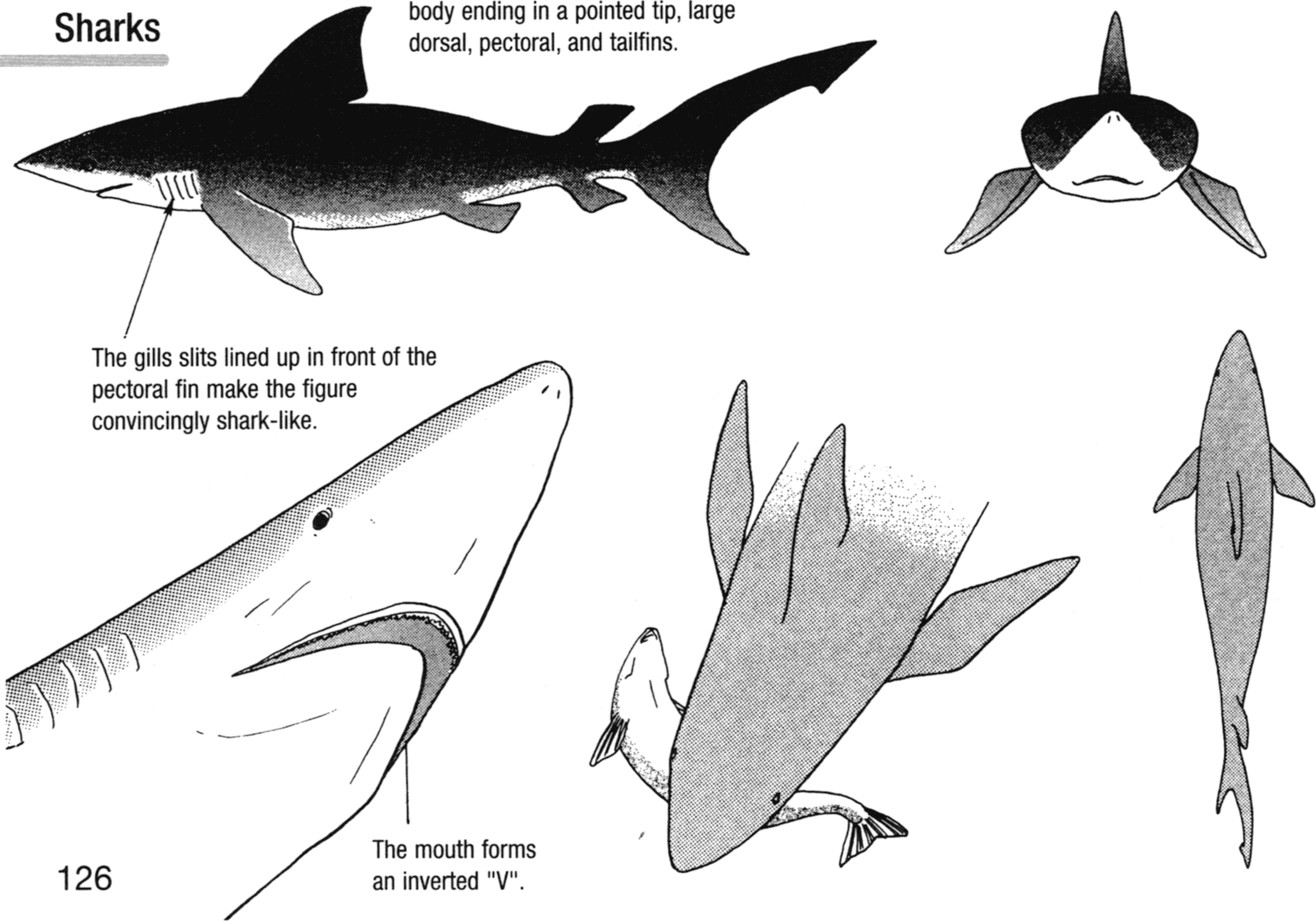
Adding thin rim of tone to the figure's outline imparts the flat body with a minor sense of volume.

The tail is three times the length of the body.

Sharks

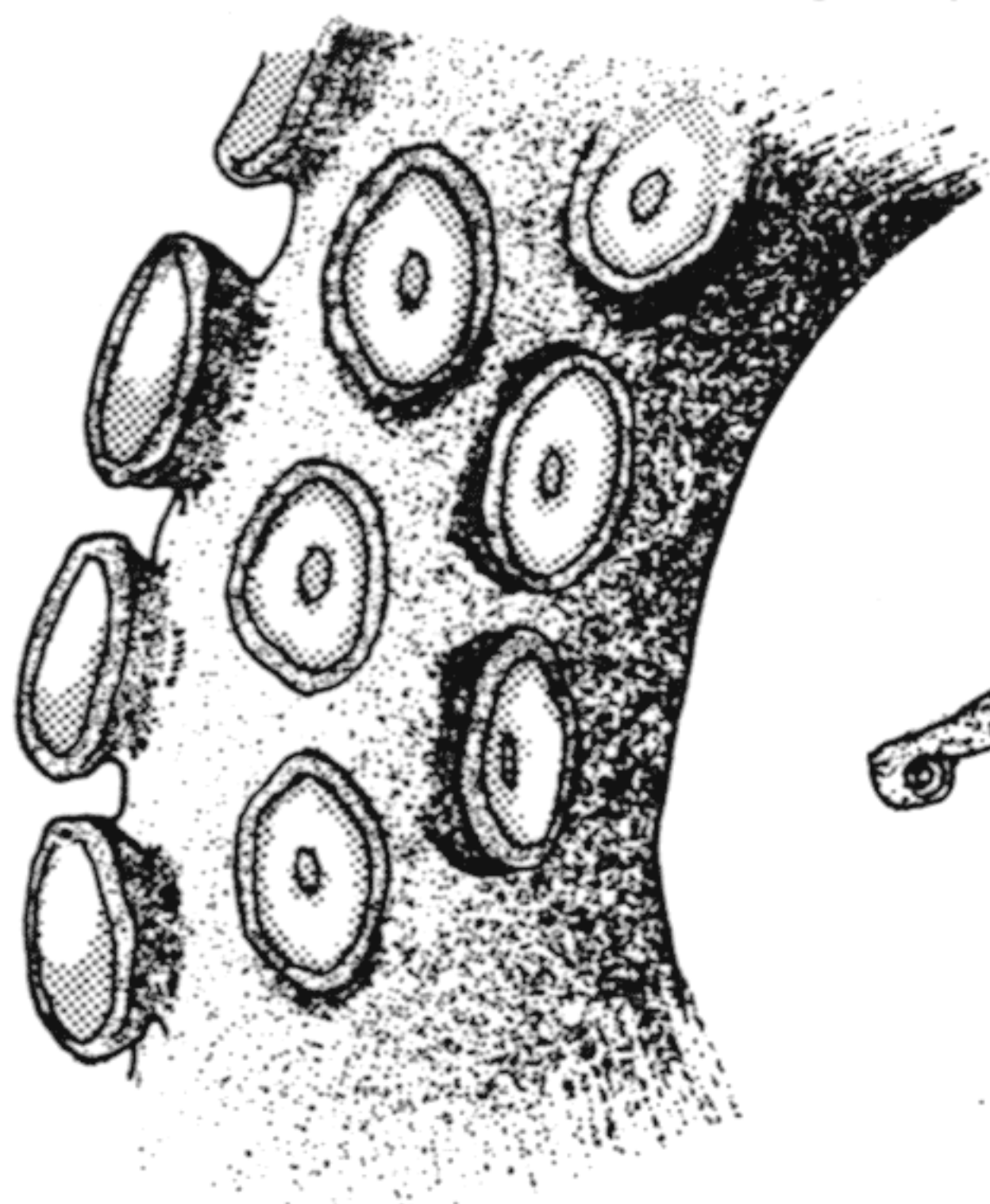
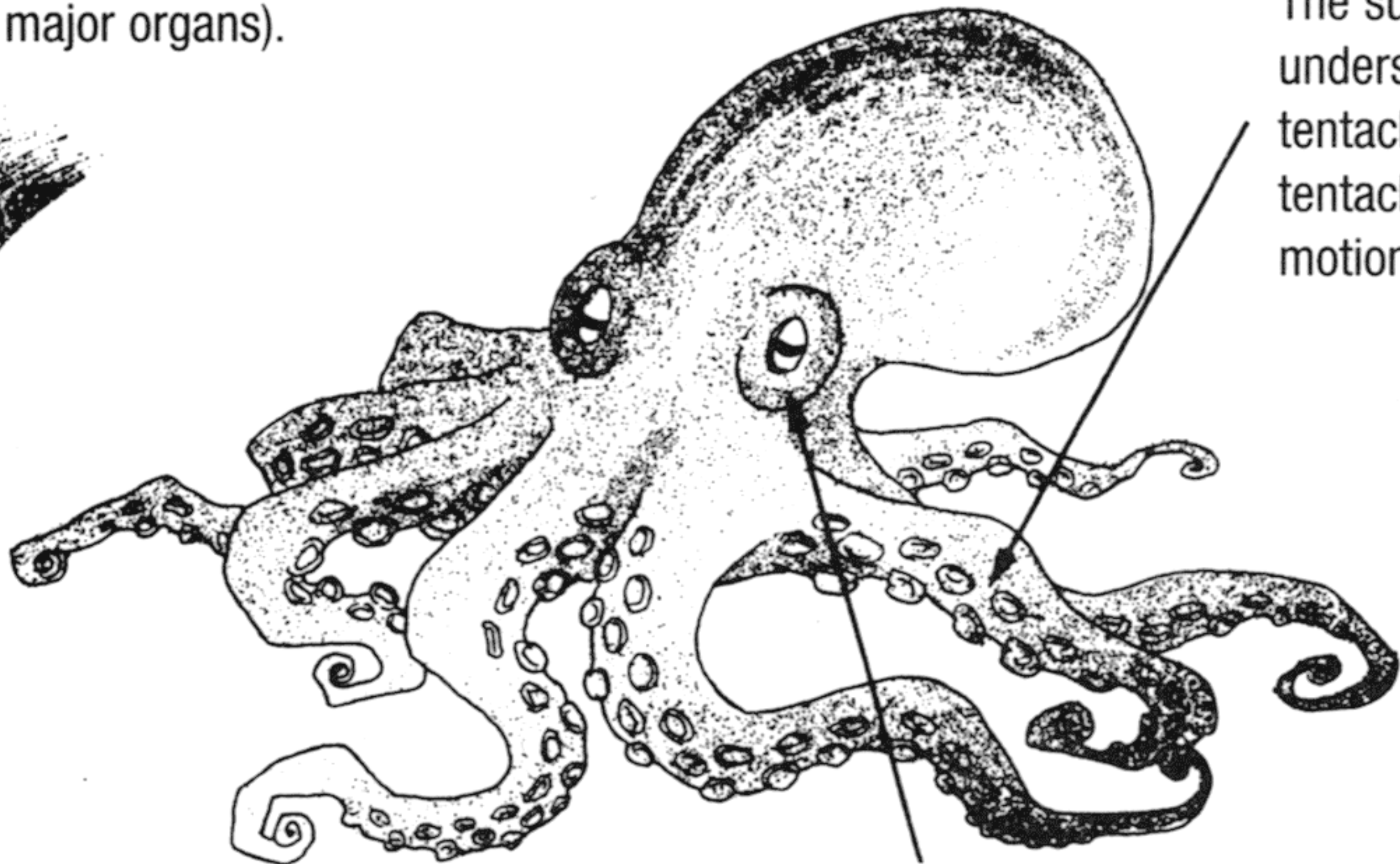
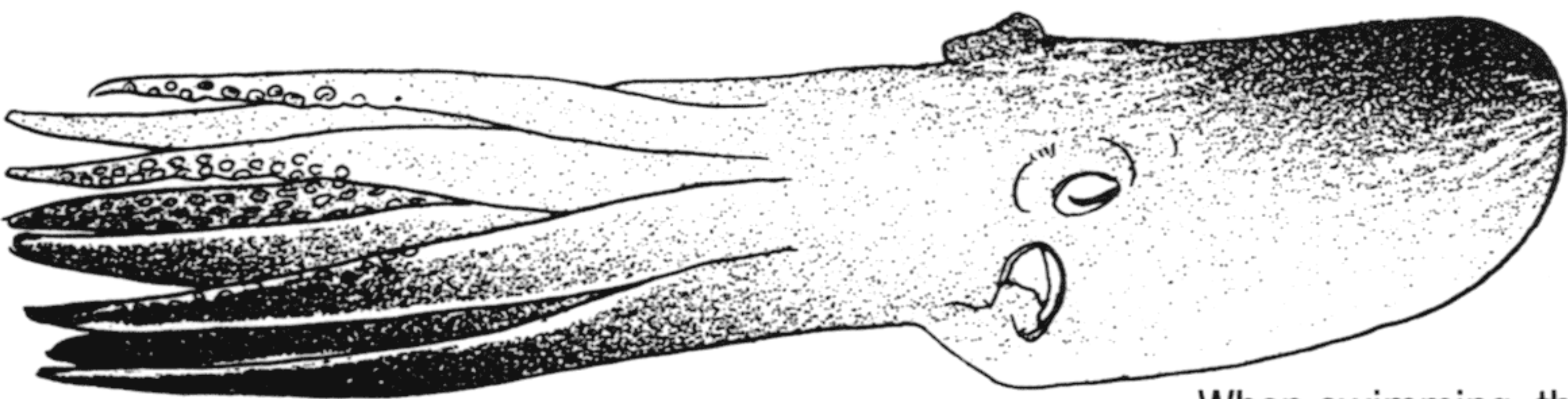
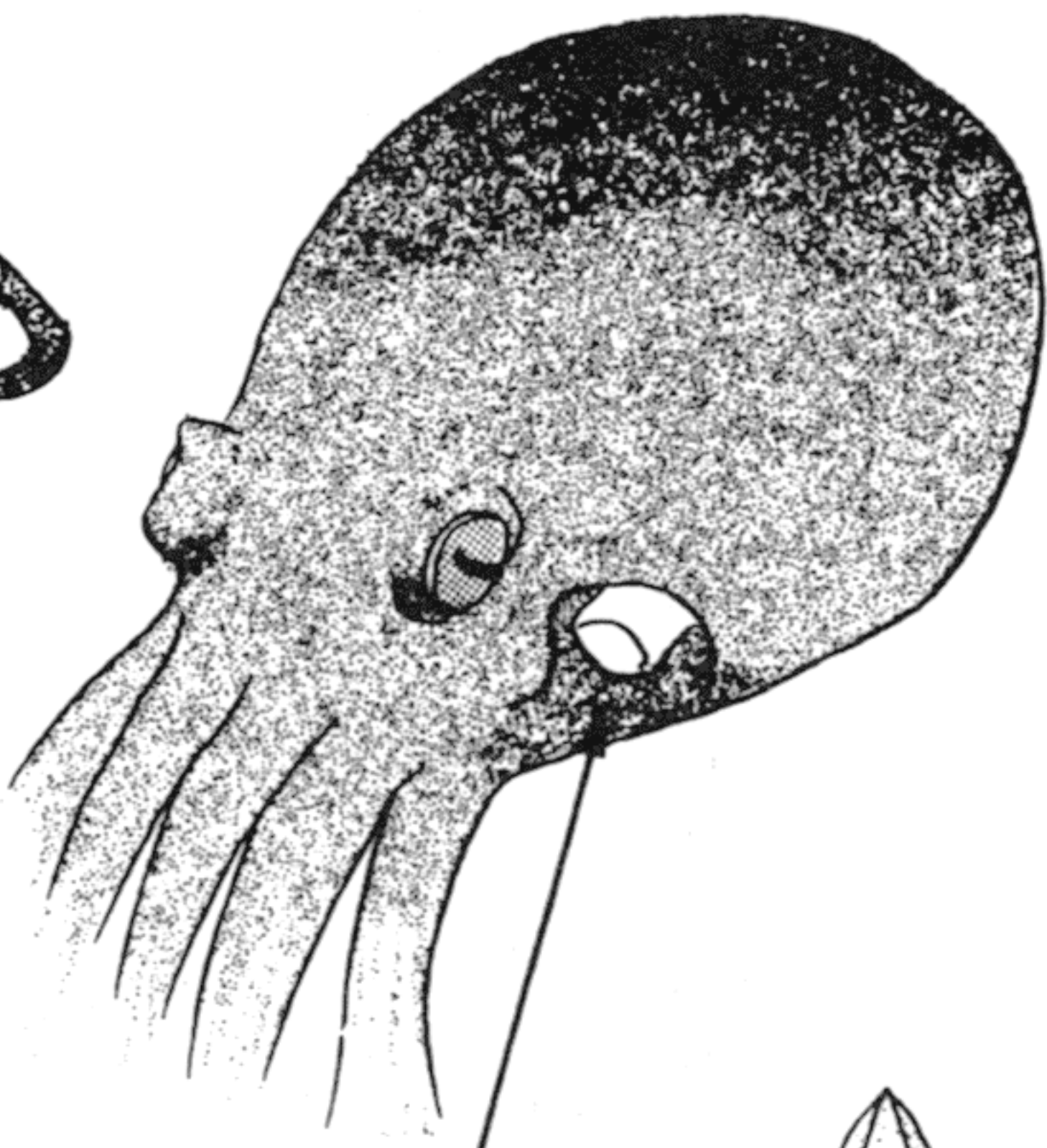
Portray the shark with a streamlined body ending in a pointed tip, large dorsal, pectoral, and tailfins.

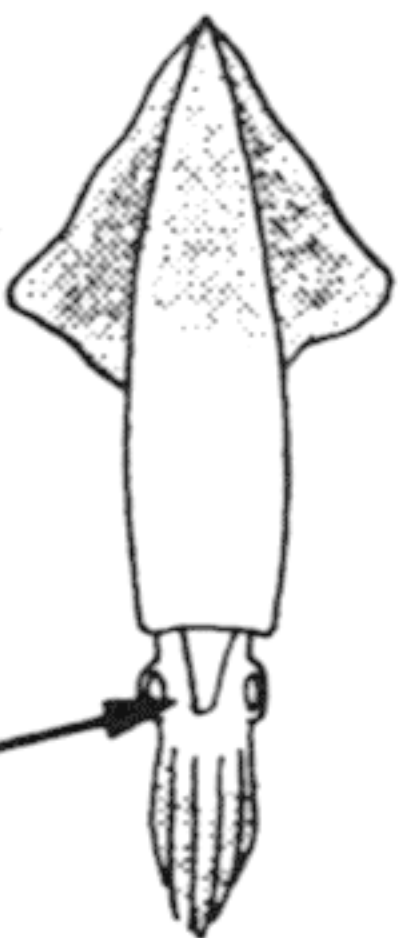
The dorsal and pectoral fins are proportioned to form a triangle.

The gills slits lined up in front of the pectoral fin make the figure convincingly shark-like.

The mouth forms an inverted "V".

Octopuses

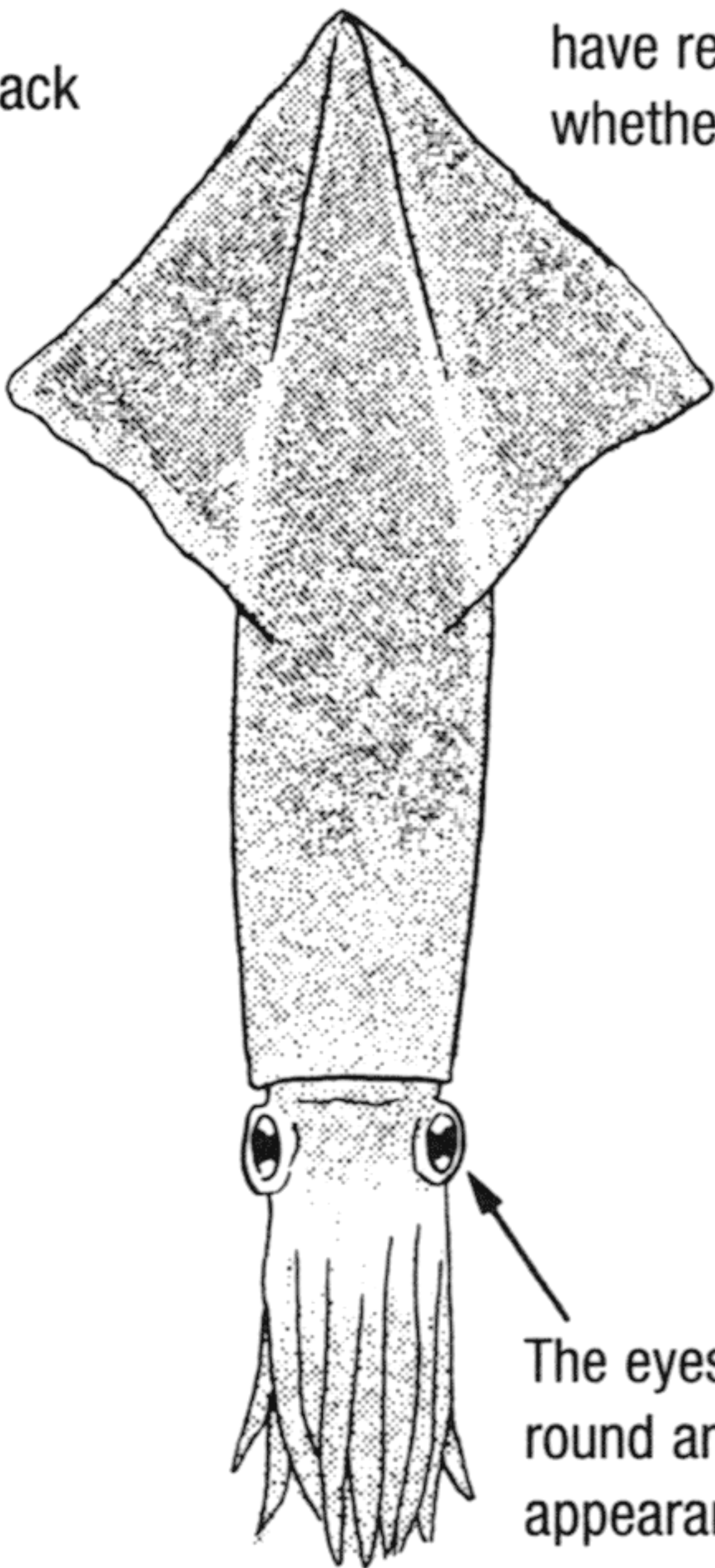
The octopus has a head-to-body ratio of approximately 1:2 with the tentacles somewhat longer than the mantle (large, bulbous, muscular feature resembling a head and located above the actual head, housing major organs).

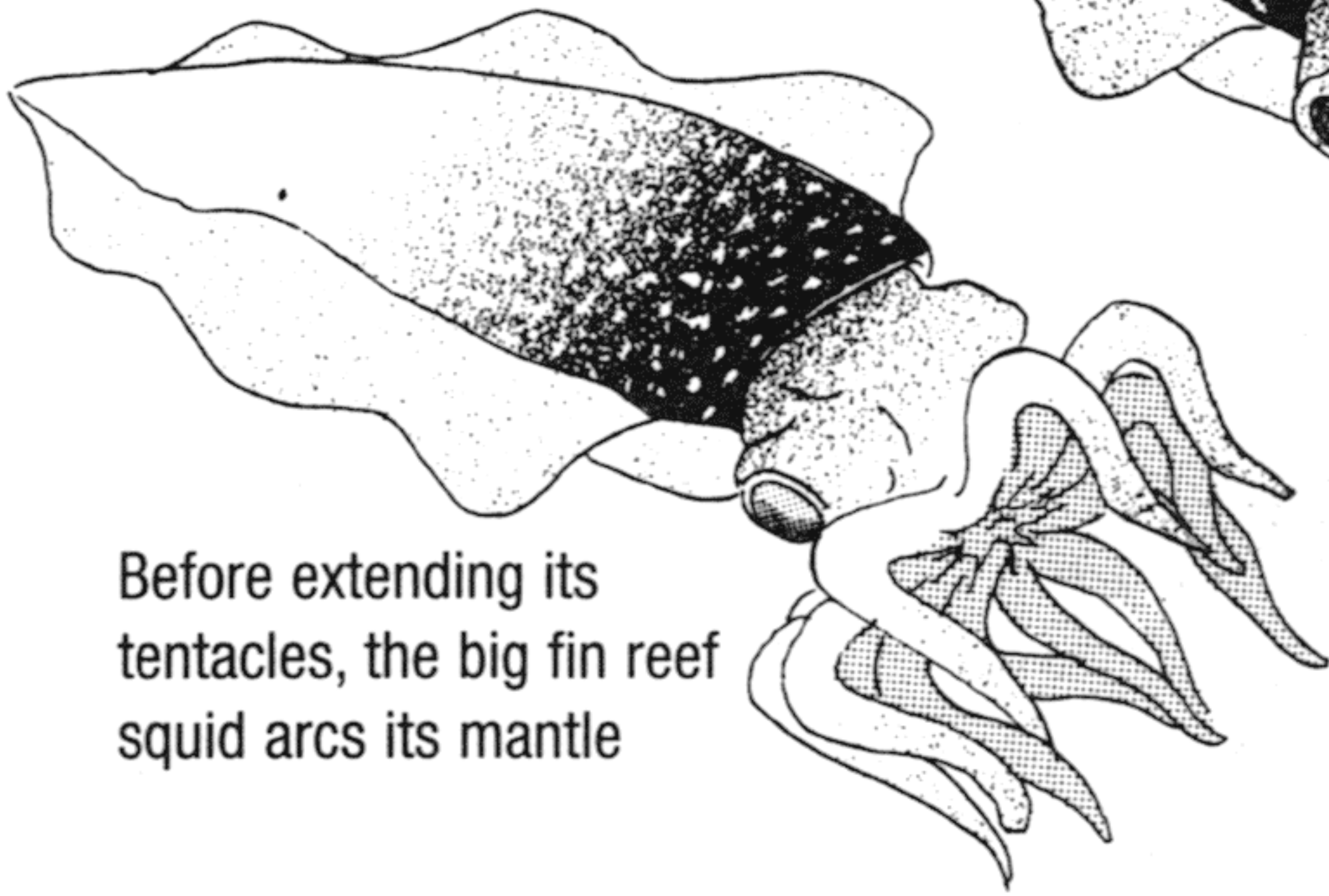
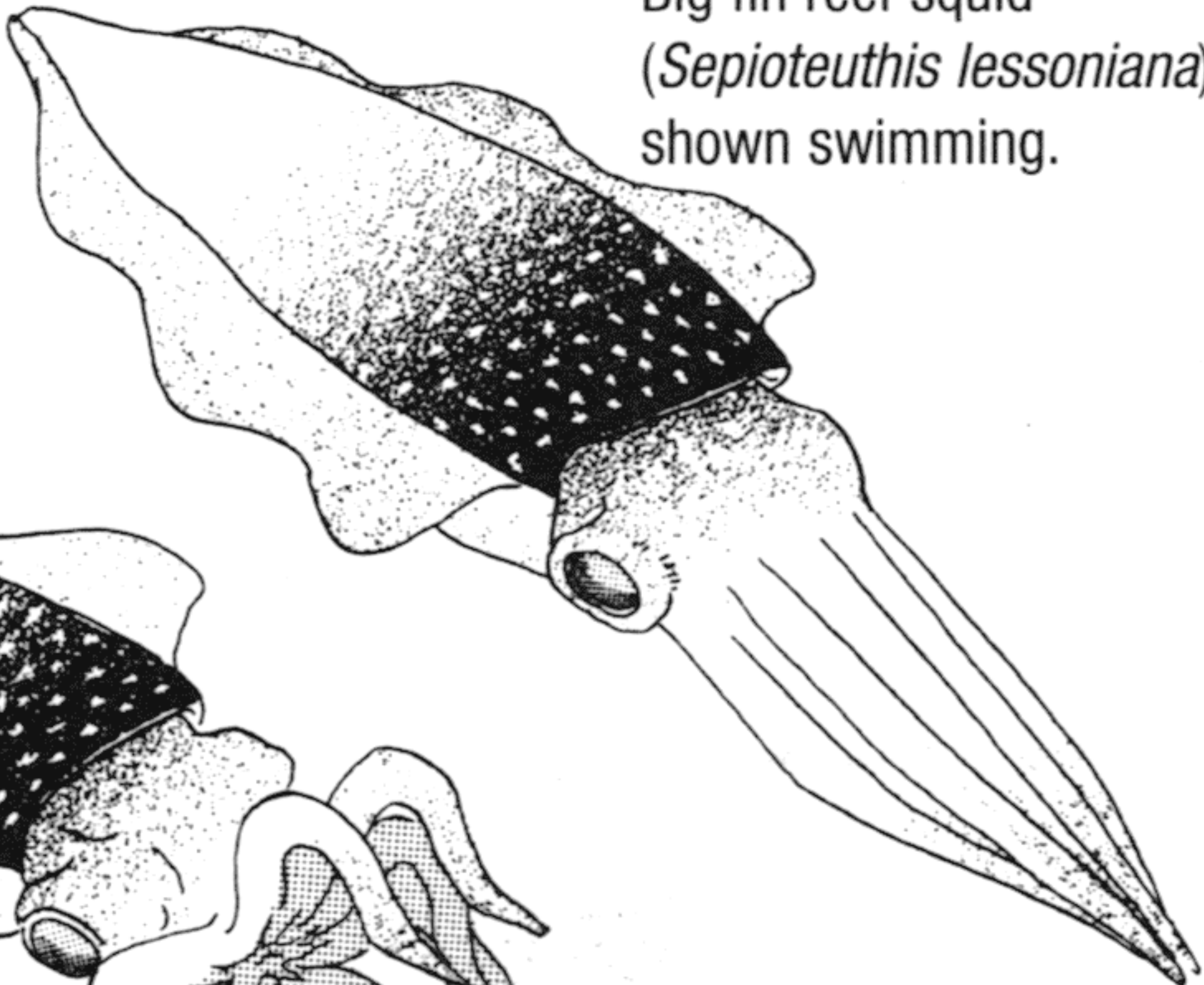
The suction cups are aligned along the underside of the tentacles. Drawing the tentacles toward the outside portrays the tentacles' characteristic wiggly, wriggly motion.

The suction cups are regularly spaced in staggered rows.

The pupil is horizontally oblong, making the octopus look sleepy.

When swimming, the octopus stretches itself, elongating the mantle.

The siphon is not a mouth for food, nor is it located between the eyes. The octopus squirts water through the siphon to allow for jet propulsion.

Siphon

Squid

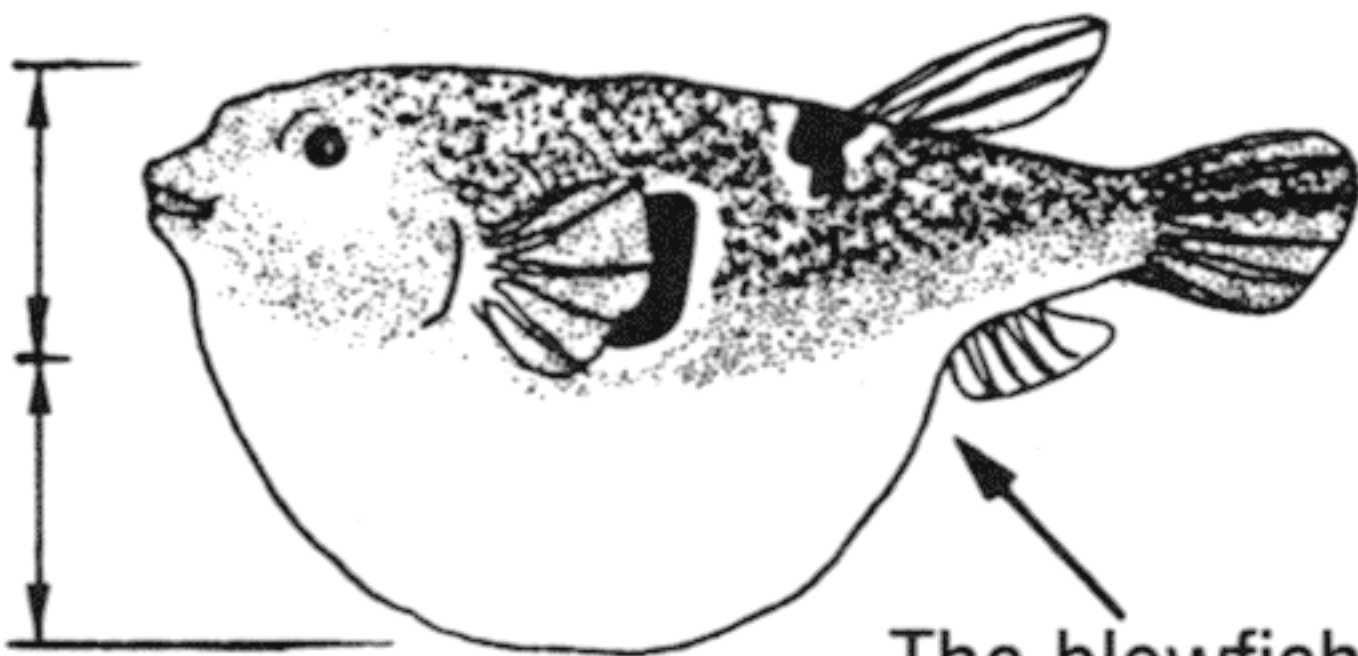
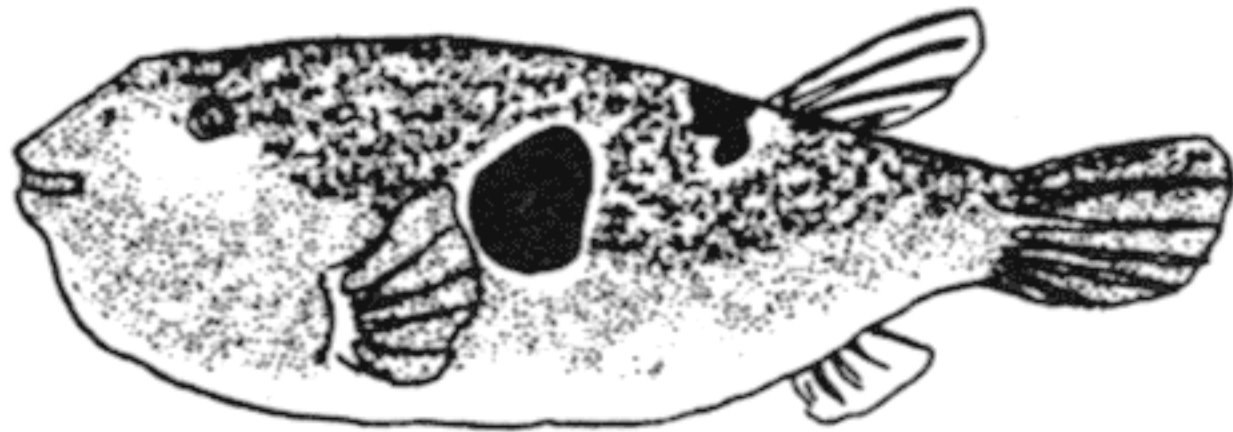
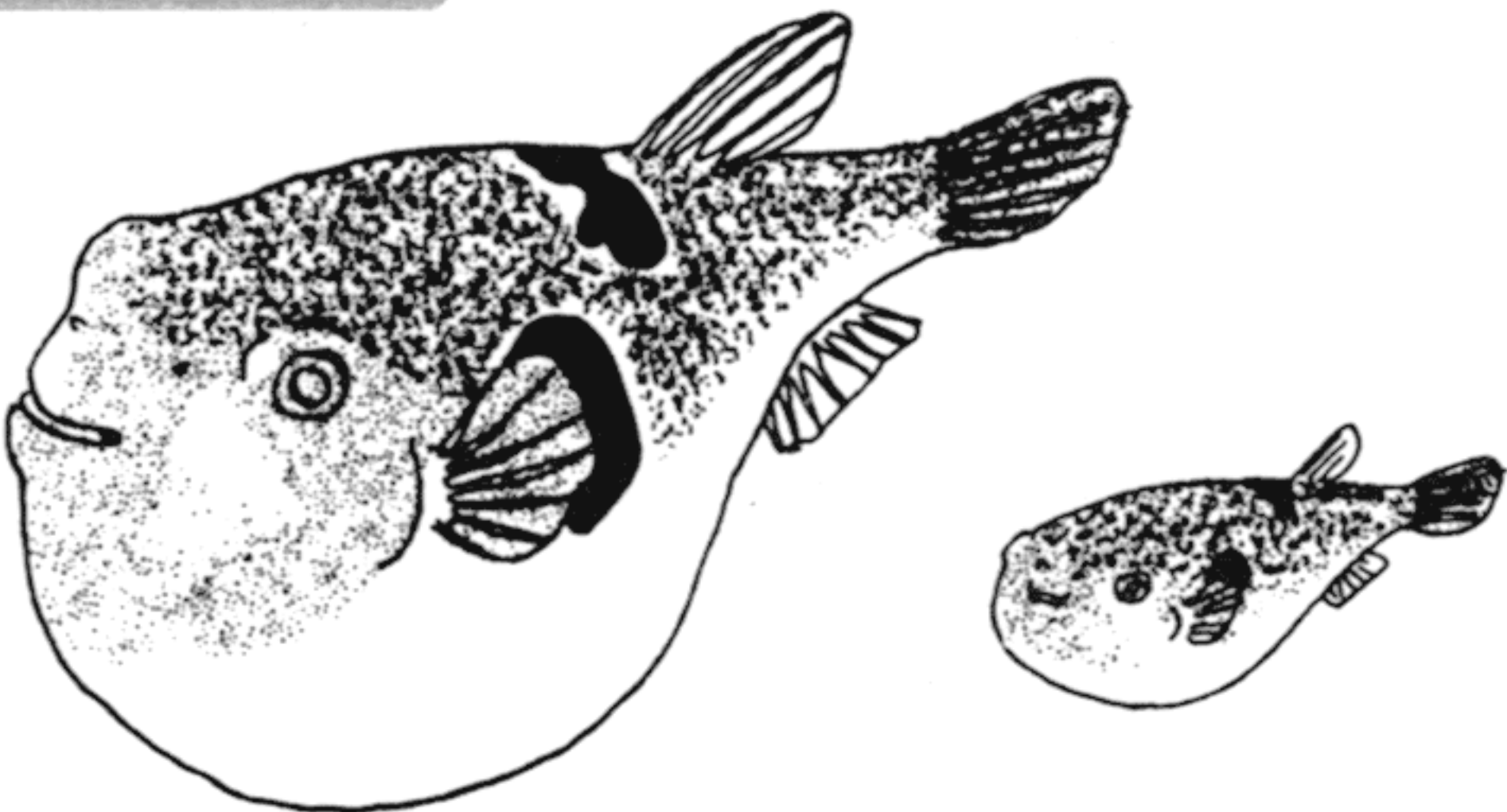
Front

Back

The *yariika*'s ("spear squid"; *Loligo bleekeri*) cylindrical body appears to have relatively the same thickness whether viewed from the front or side.

Big fin reef squid (*Sepioteuthis lessoniana*) shown swimming.

Before extending its tentacles, the big fin reef squid arcs its mantle

The entire body becomes ramrod stiff when the tentacles are extended.

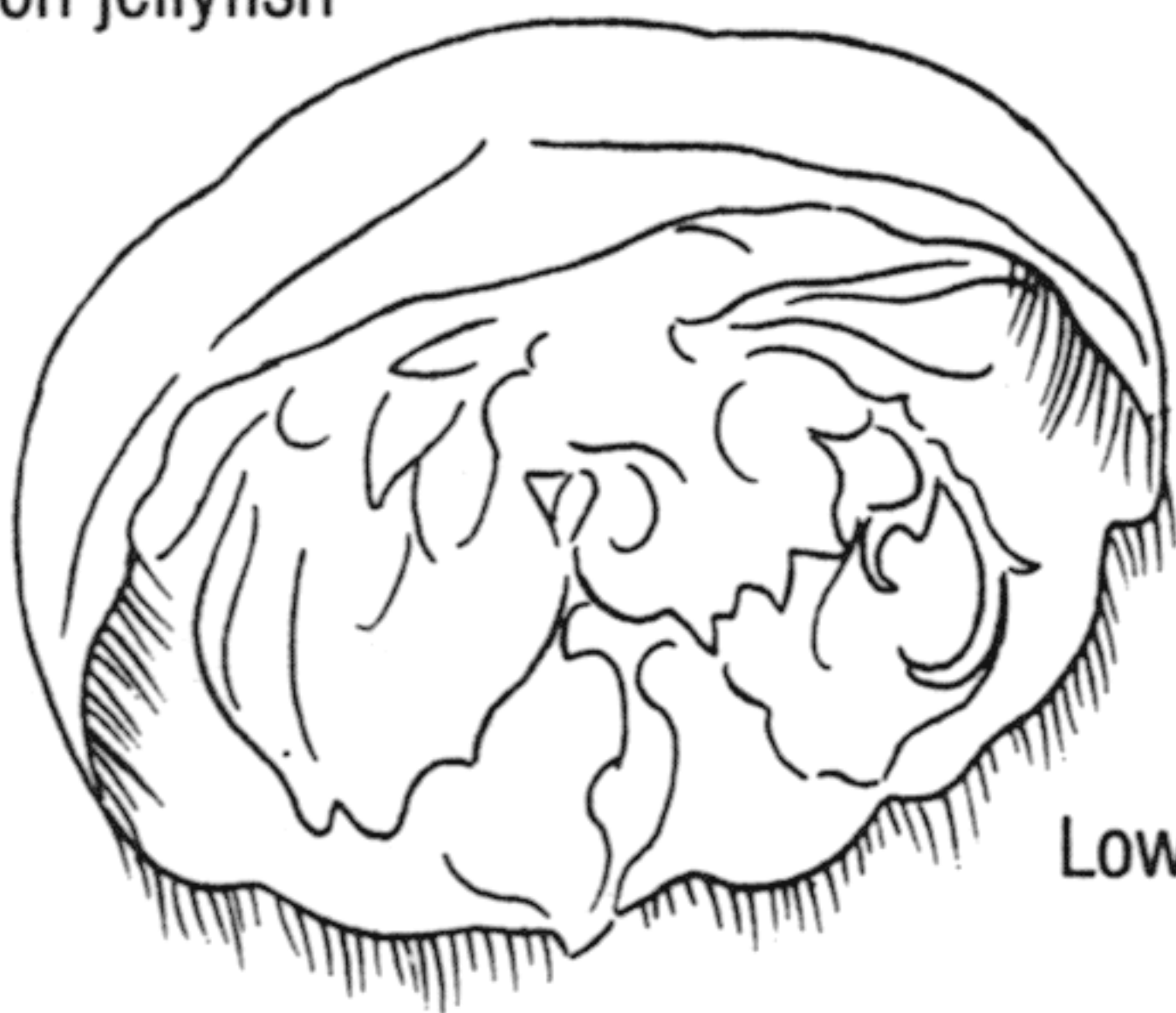
The eyes are perfectly round and have an alert appearance.

Blowfish

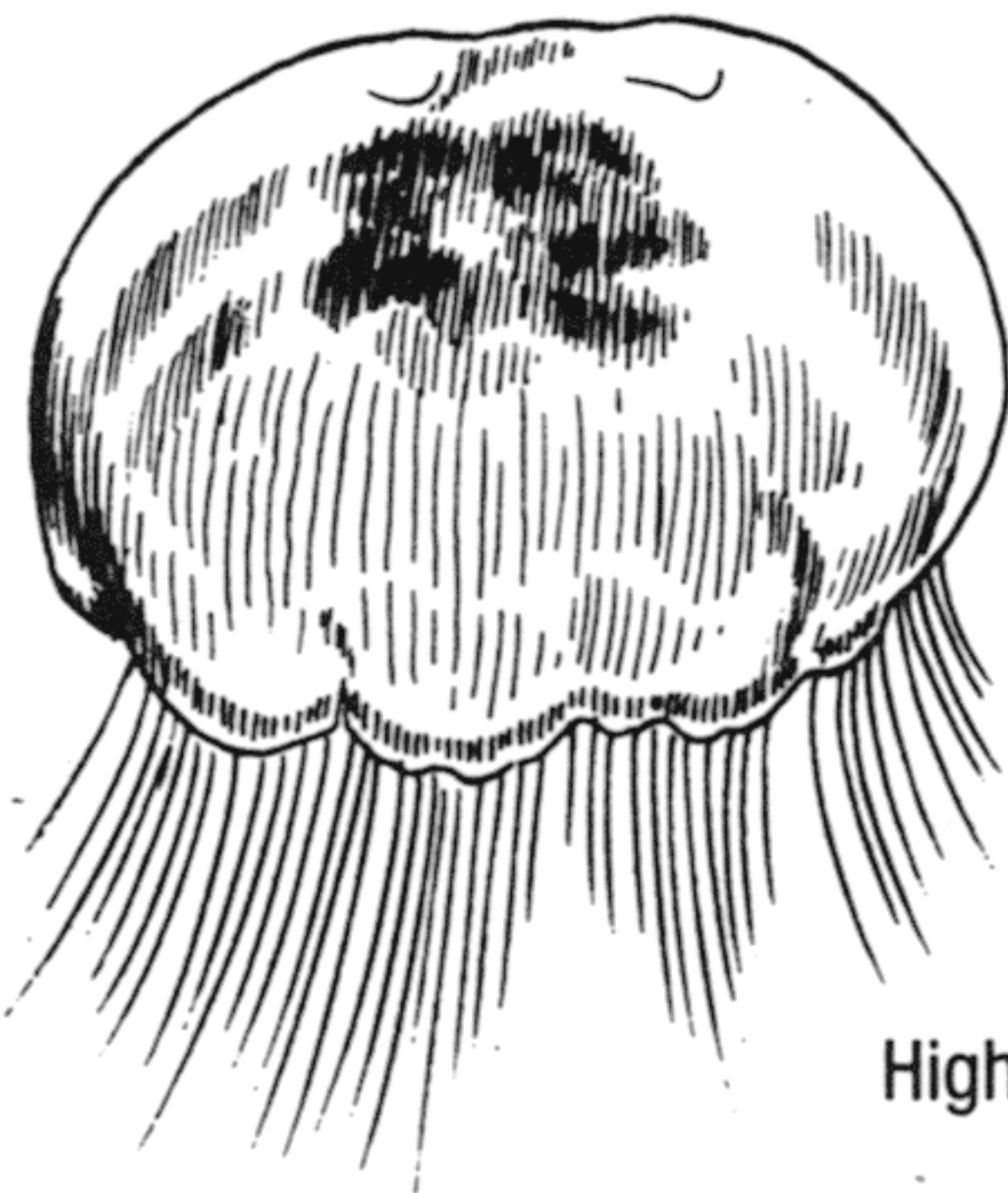
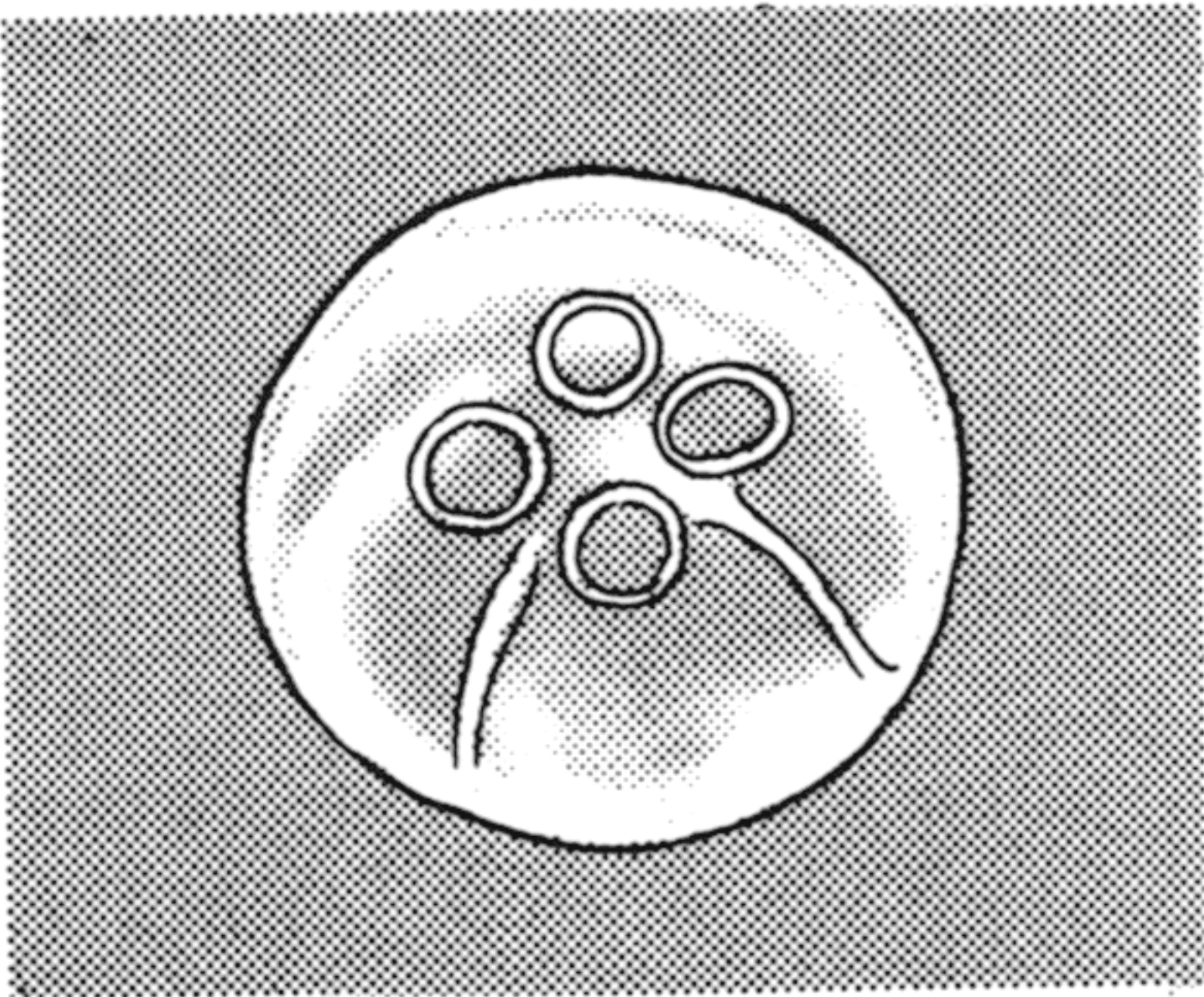
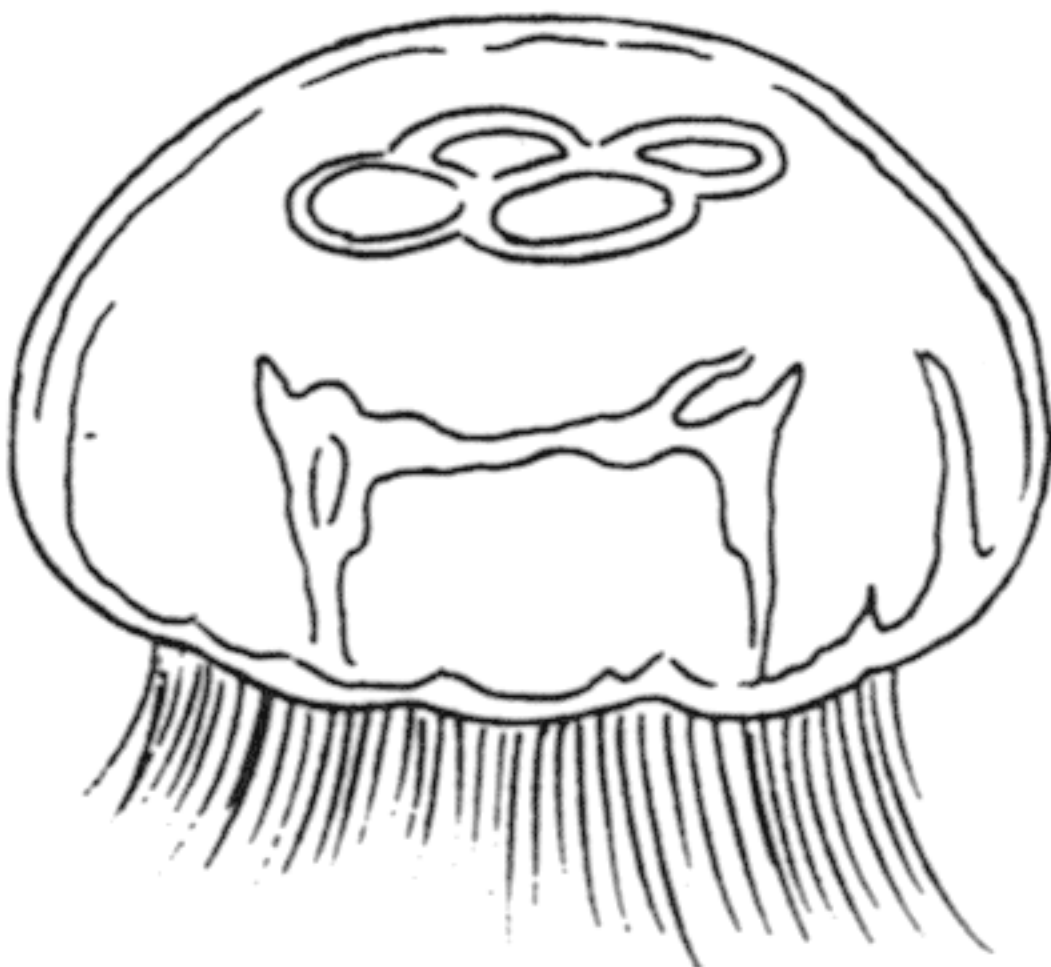
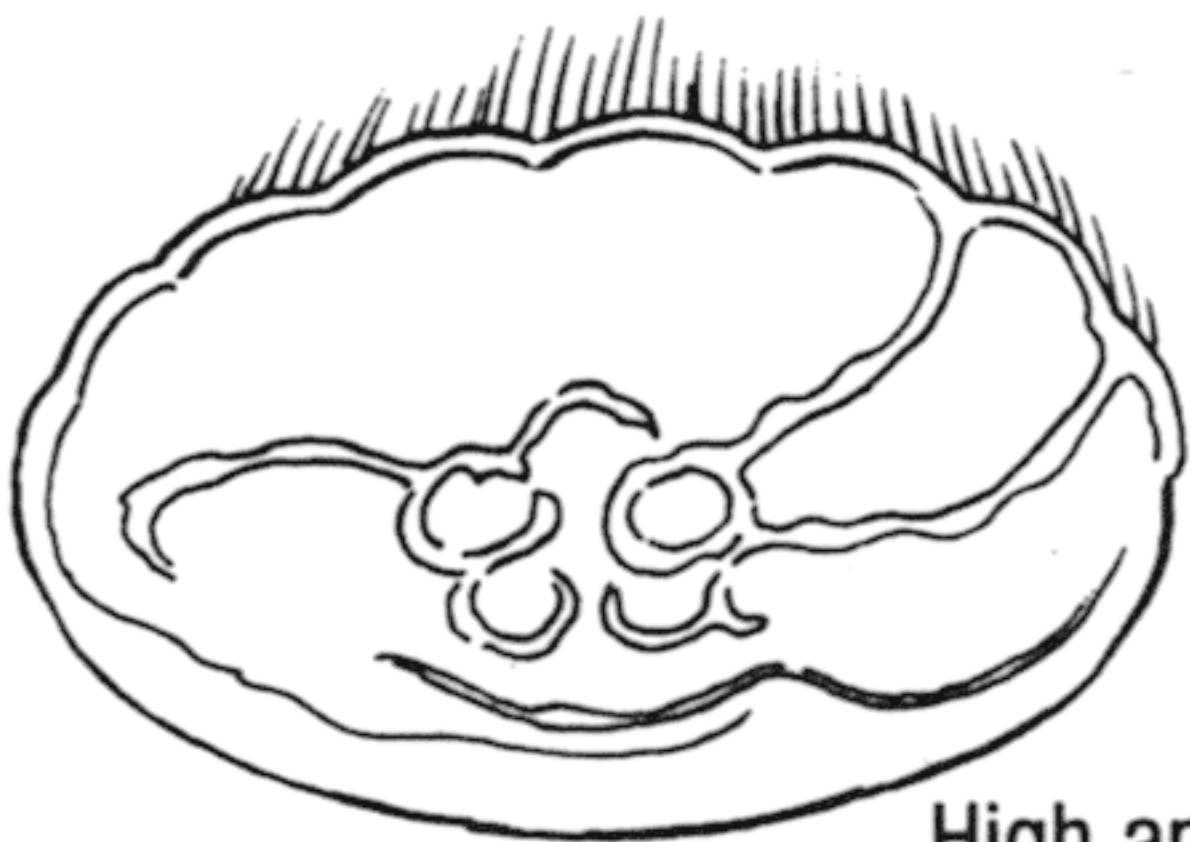
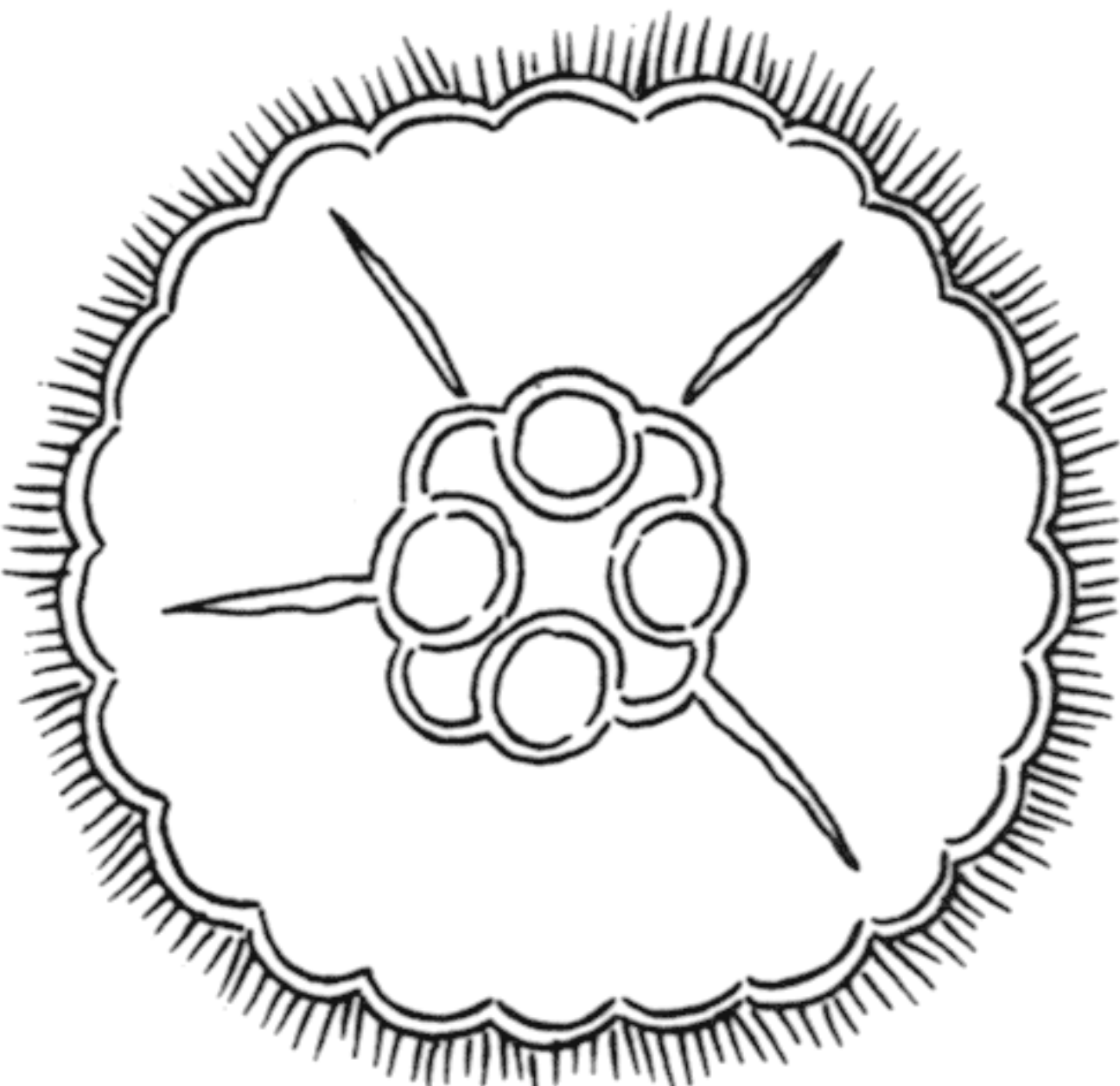
The blowfish inflates to twice its normal size.

The blowfish's body expands up to the pelvic fin.

Jellyfish

The jellyfish's movements and the angle from which it is viewed greatly affect whether it appears flat to the eye or a complicated three-dimensional creature.

Moon jellyfish

Low angle

Low angle

Profile

High angle

High angle (overhead view)

Slightly high angle

High angle

High angle
(jellyfish with bell expanded)

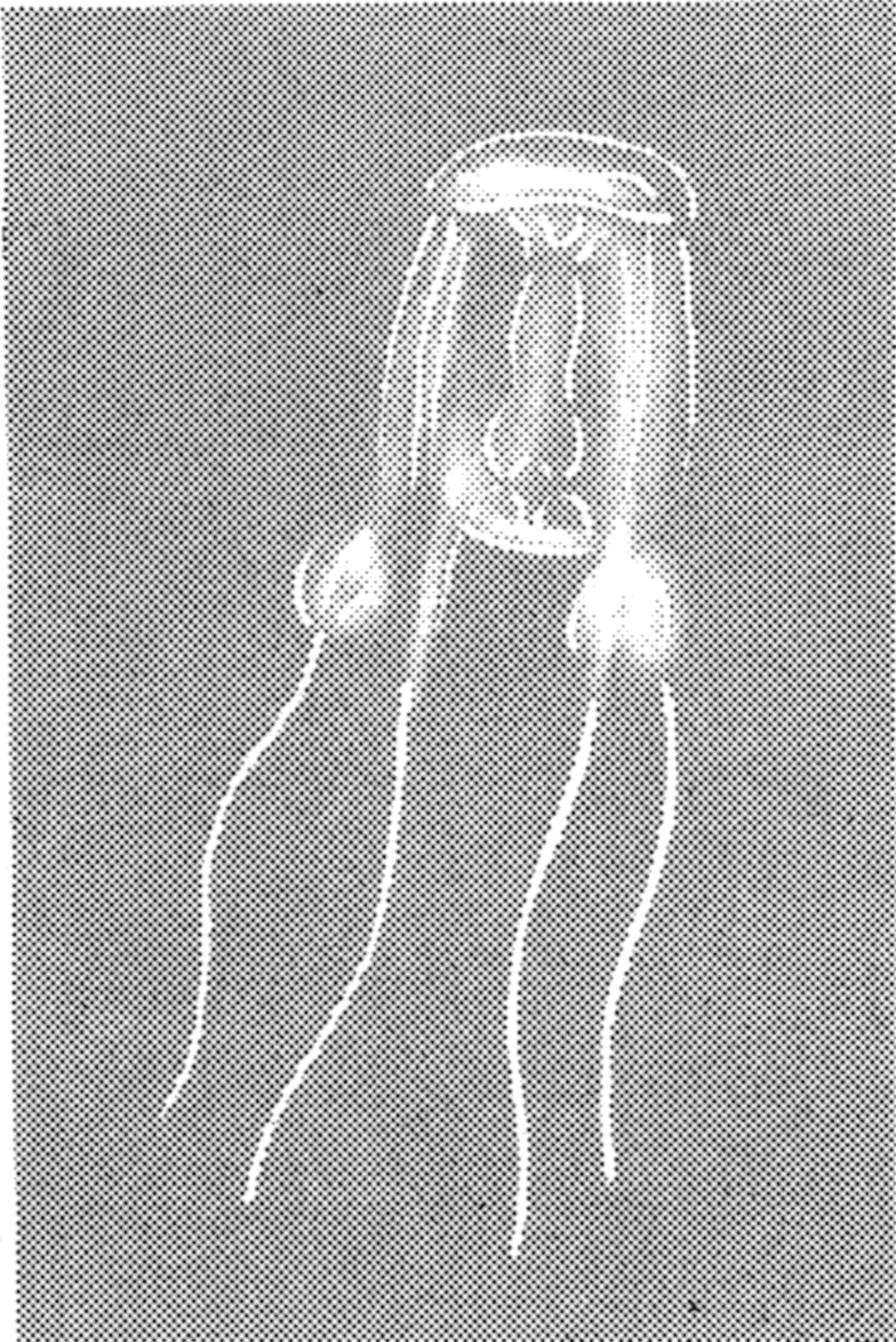
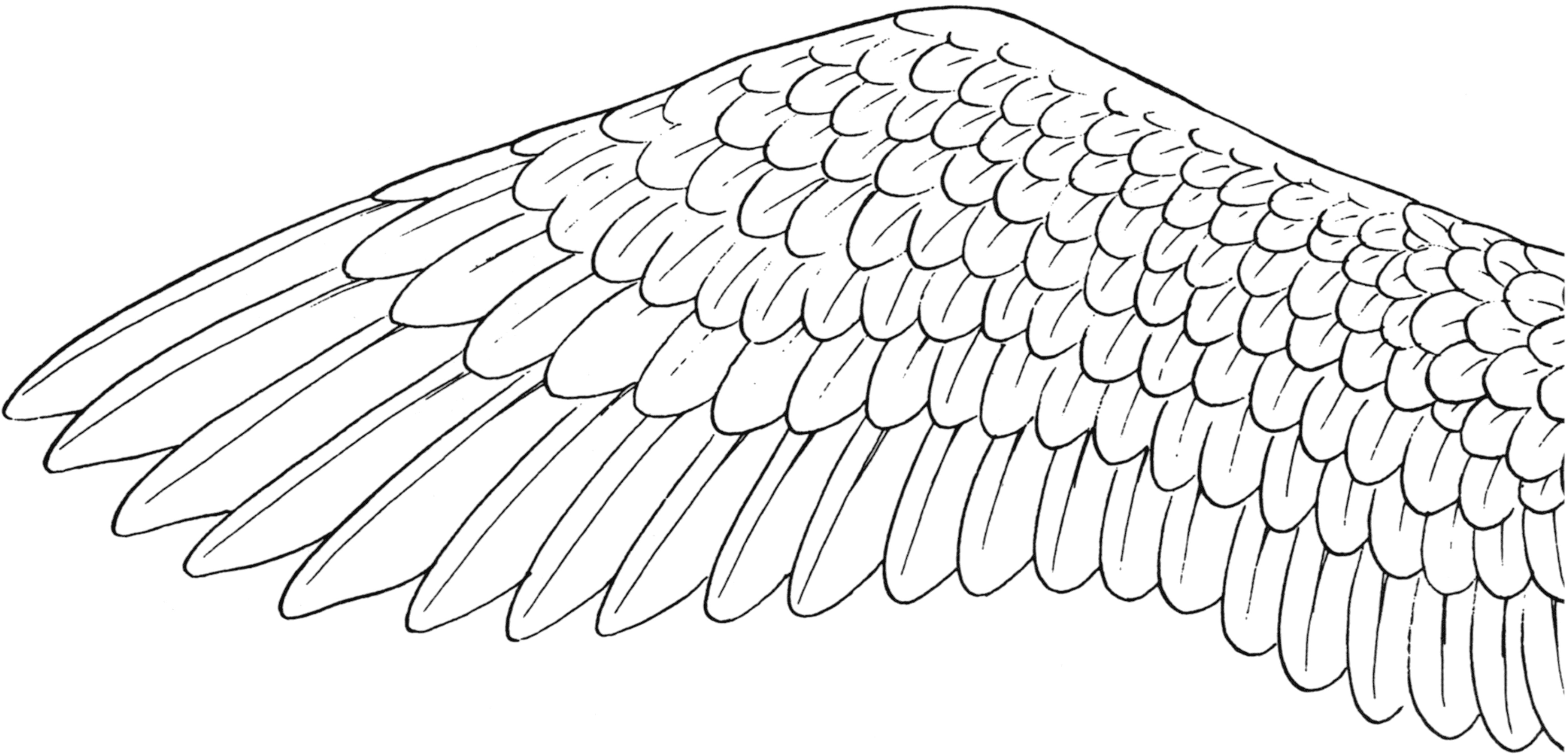
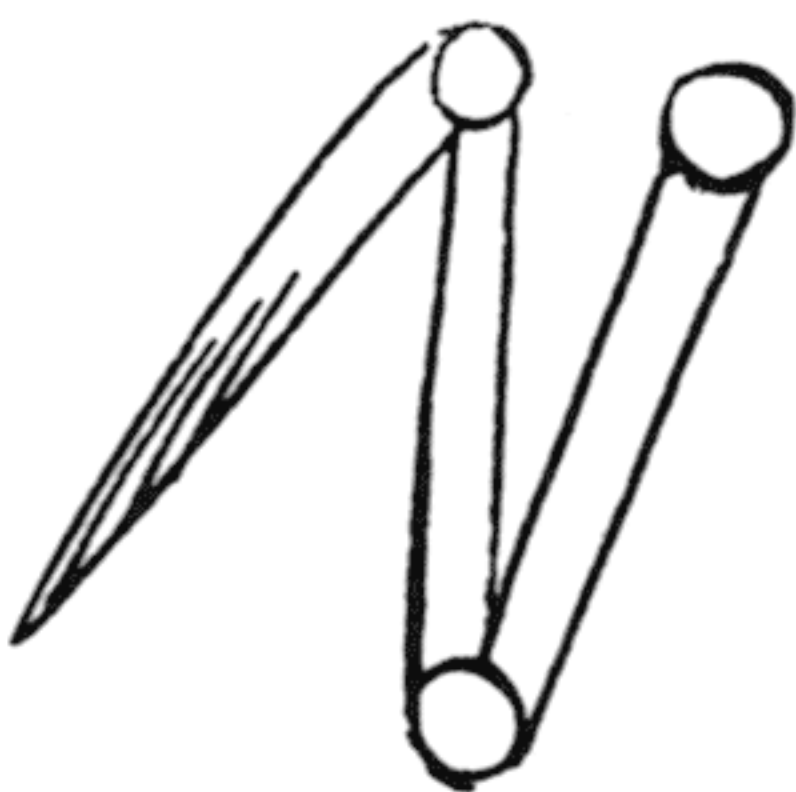
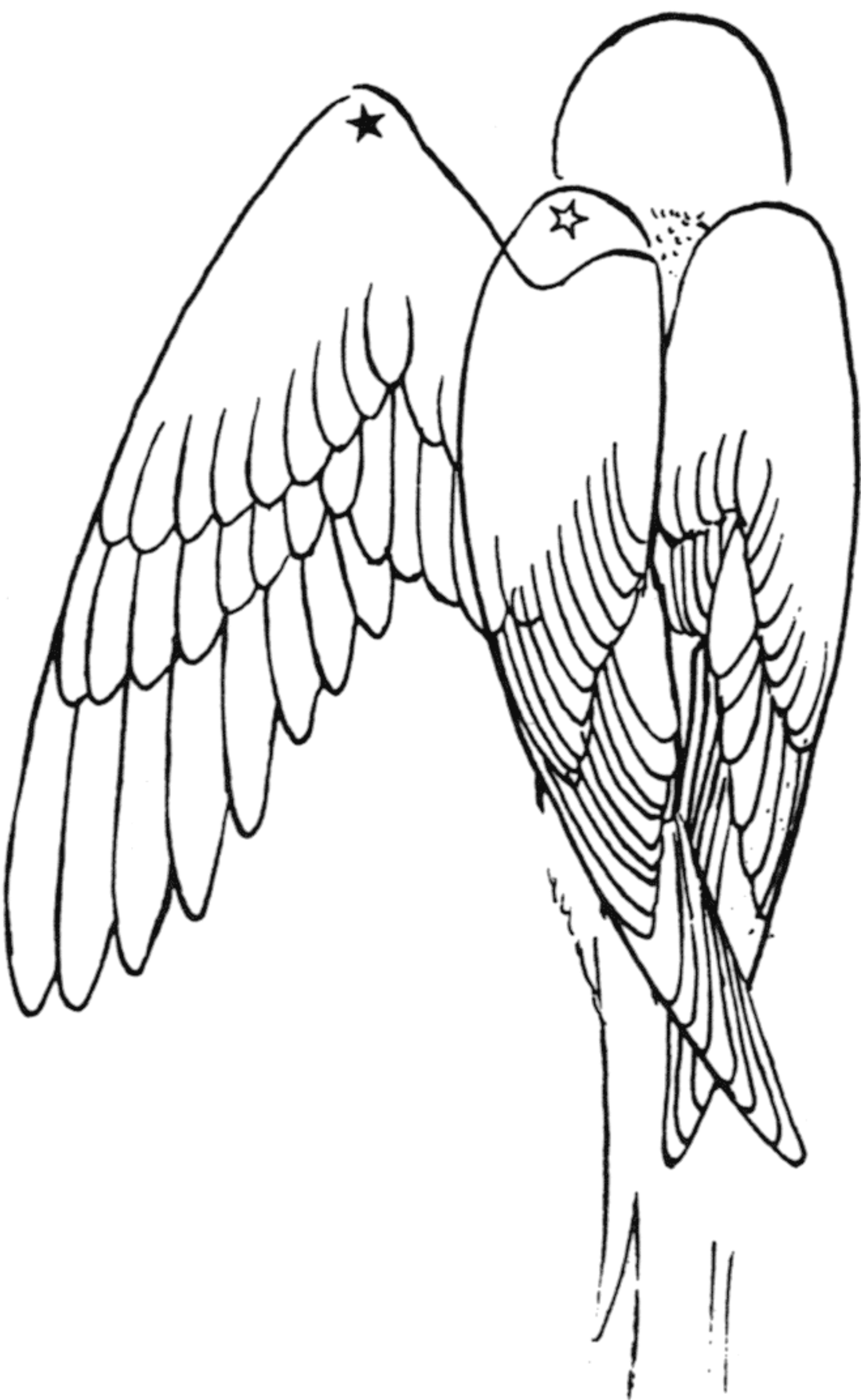
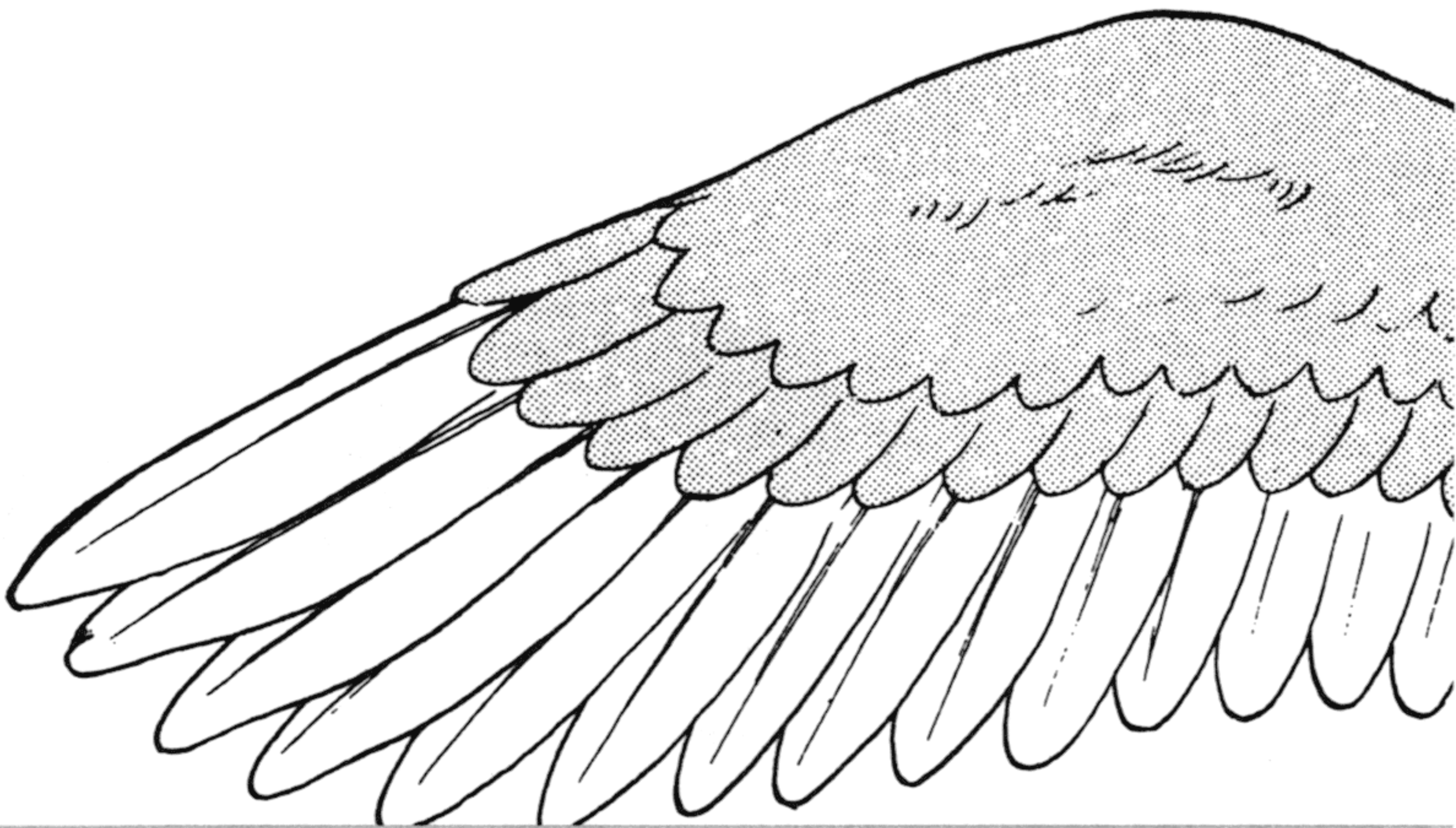
Low angle

Assorted Jellyfish

Andon kurage ("andon lamp jellyfish"; Charybdea rastonii Haeckel

Edaashi kurage ("branch-tentacle jellyfish"; Cladonema uchidai)

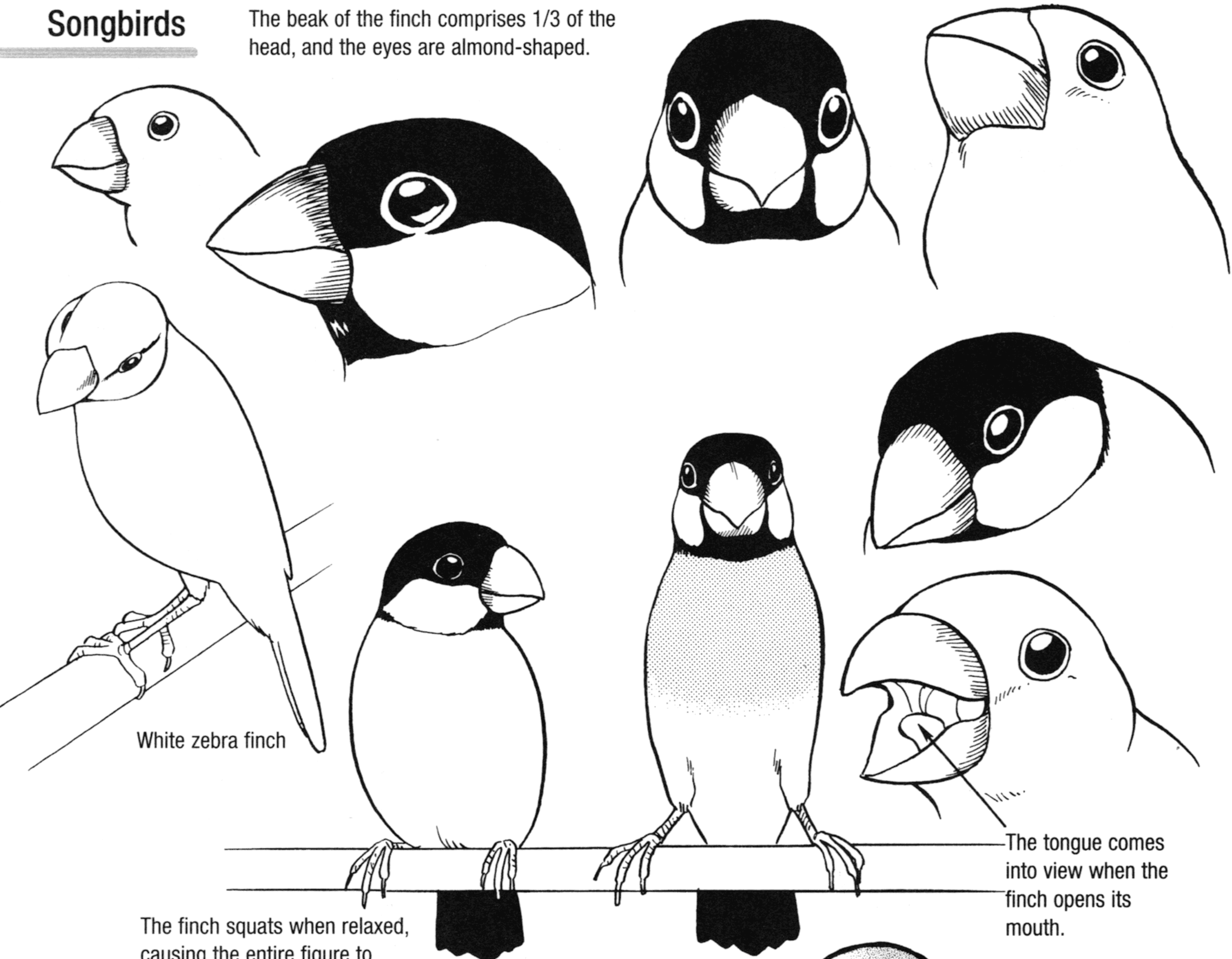
Lined sea nettle (*Chrysaora melanaster*)

Karakasa kurage ("umbrella jellyfish"; Liriope tetraphylla)

Chapter 4

Birds

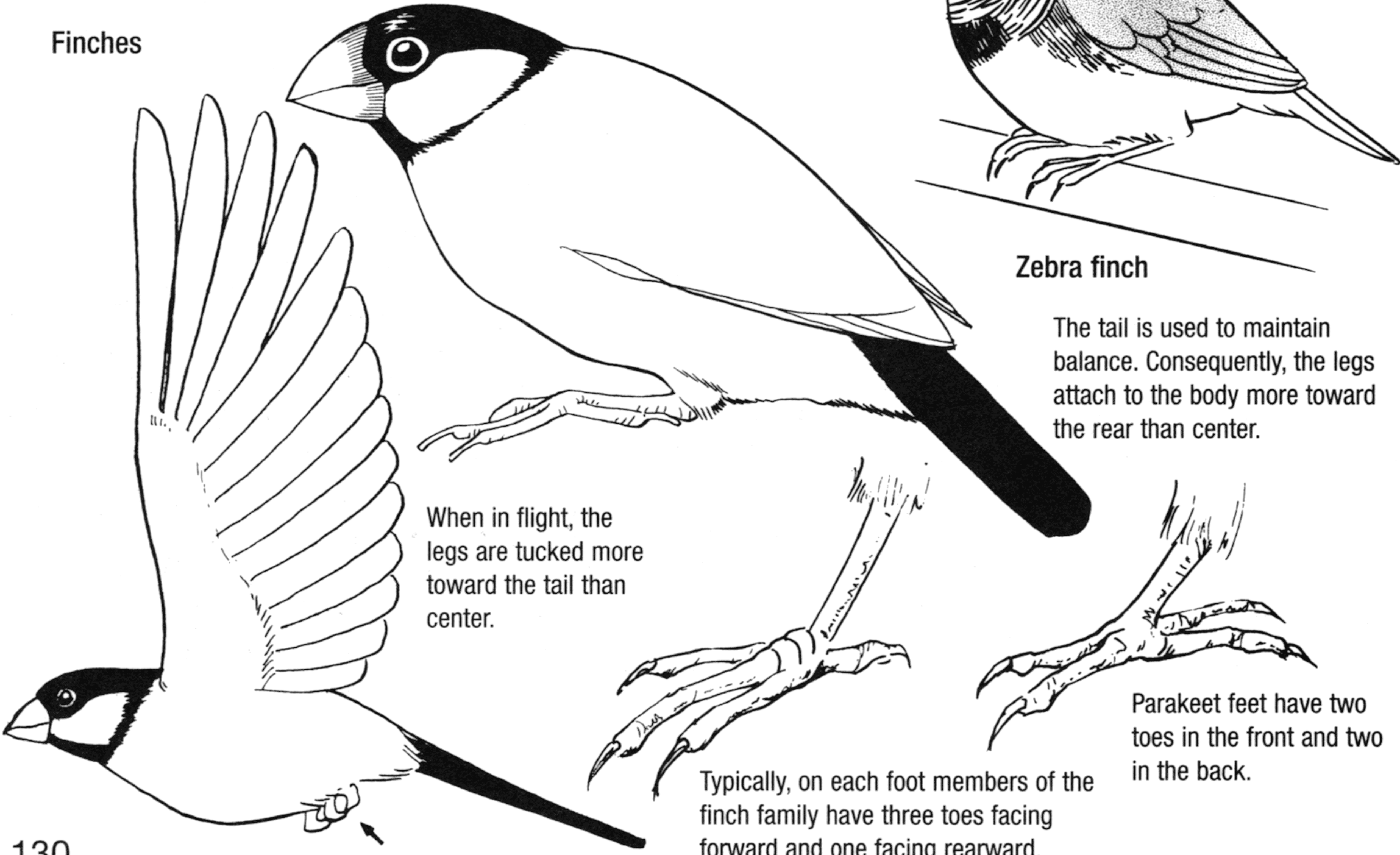
Songbirds

The beak of the finch comprises 1/3 of the head, and the eyes are almond-shaped.

White zebra finch

The tongue comes into view when the finch opens its mouth.

The finch squats when relaxed, causing the entire figure to become rounded in appearance.

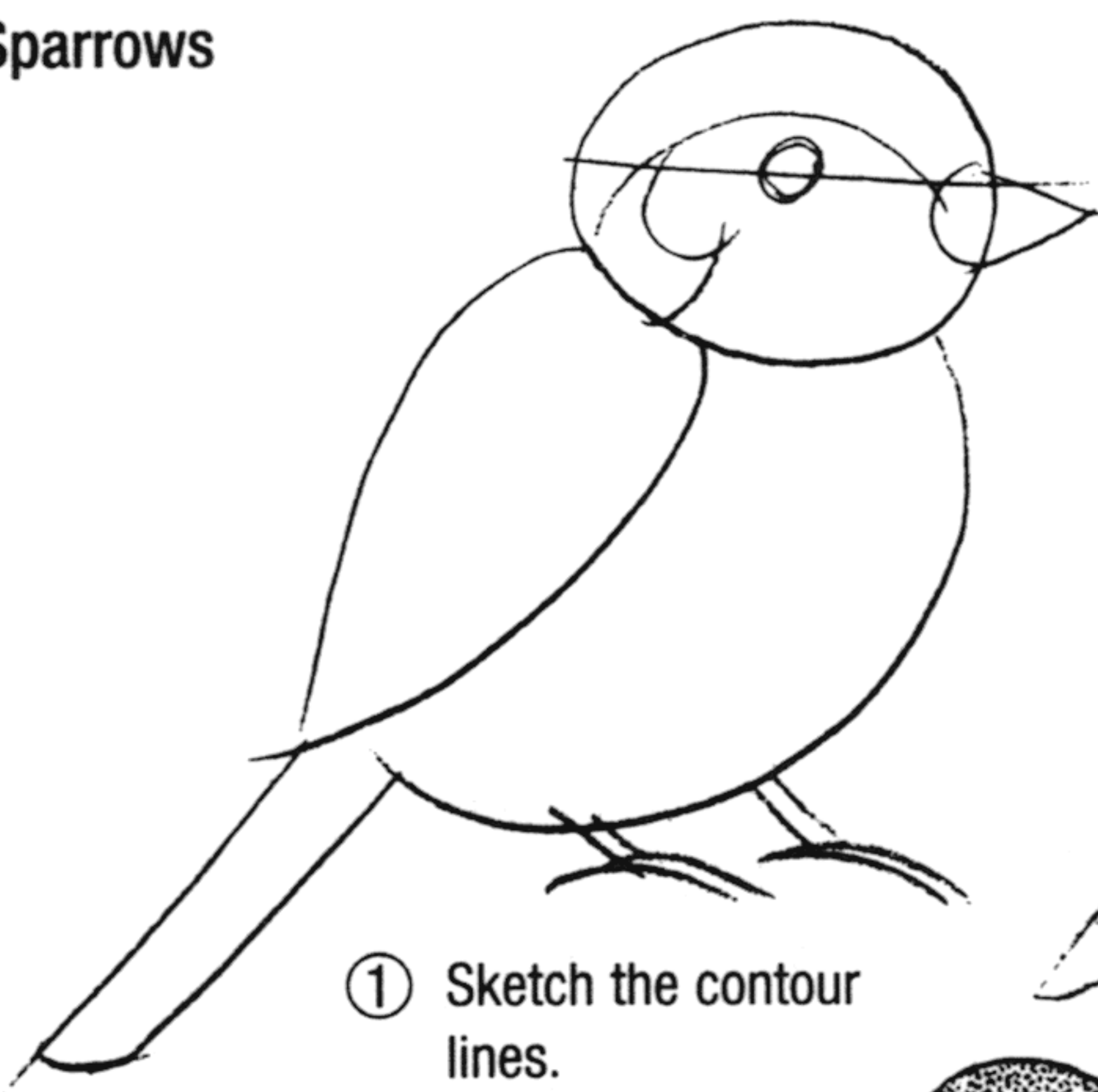
When the finch becomes alert or agitated, it holds its body erect, stretching itself thin.

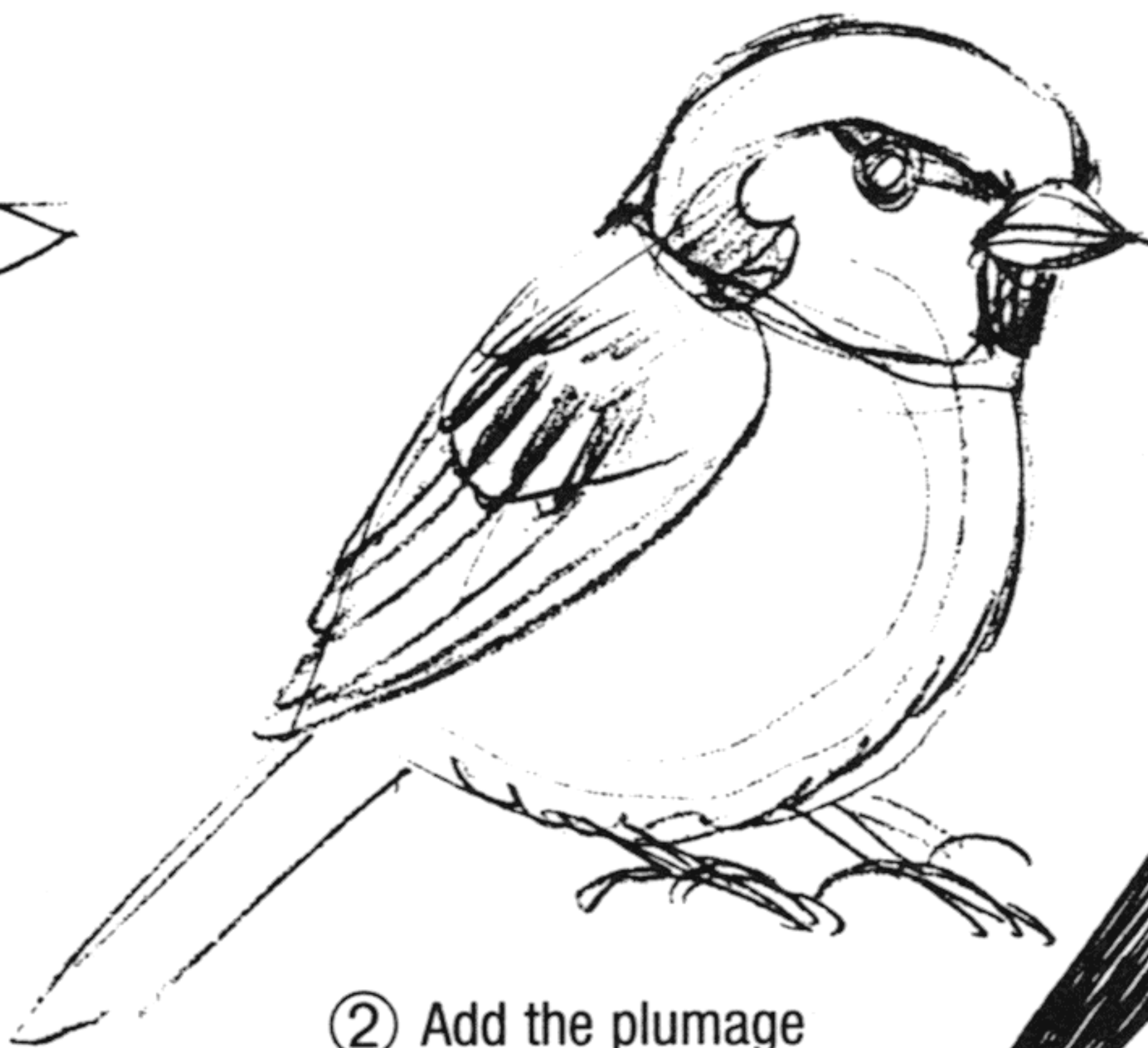
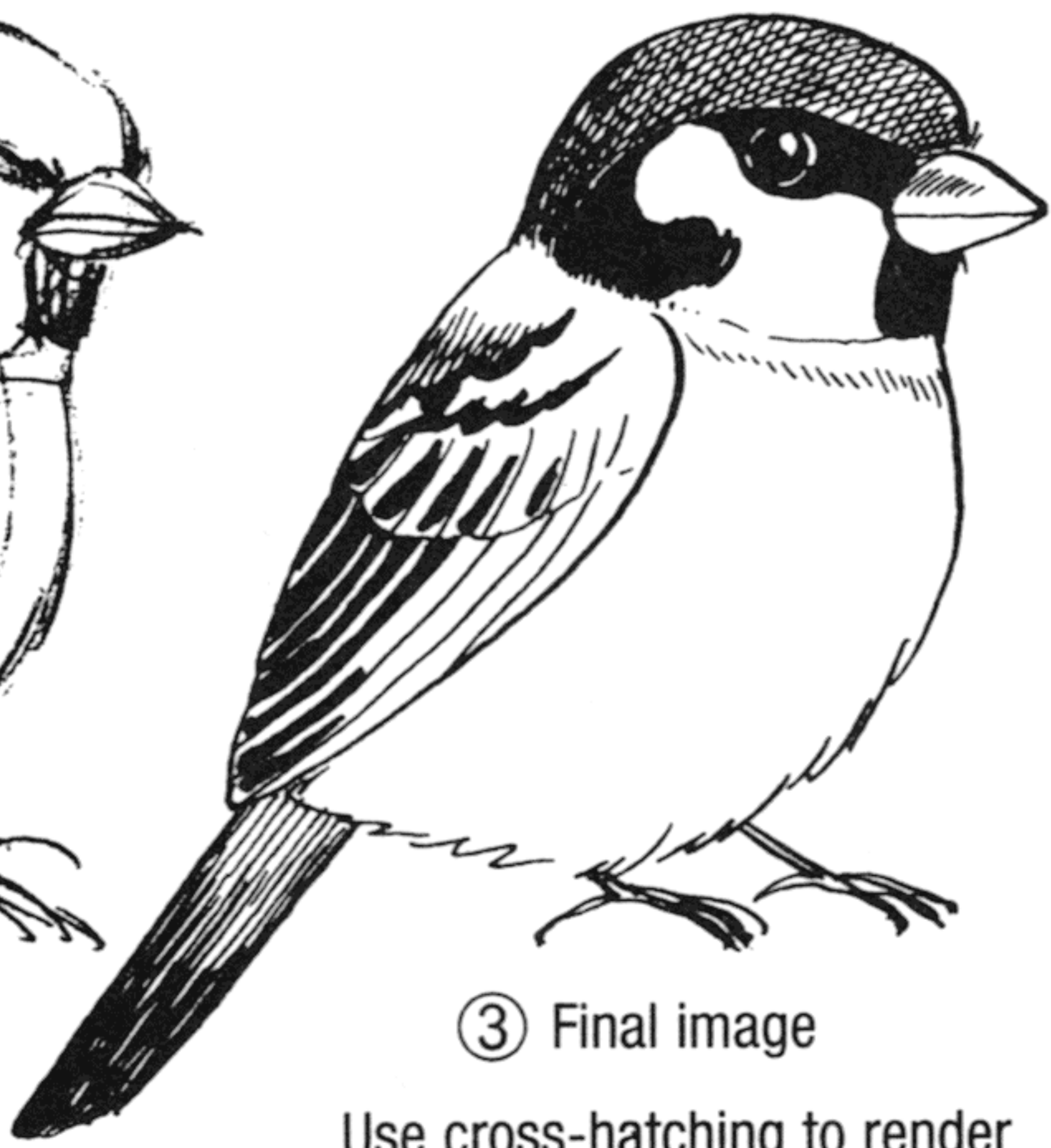
Finches

Zebra finch

The tail is used to maintain balance. Consequently, the legs attach to the body more toward the rear than center.

When in flight, the legs are tucked more toward the tail than center.

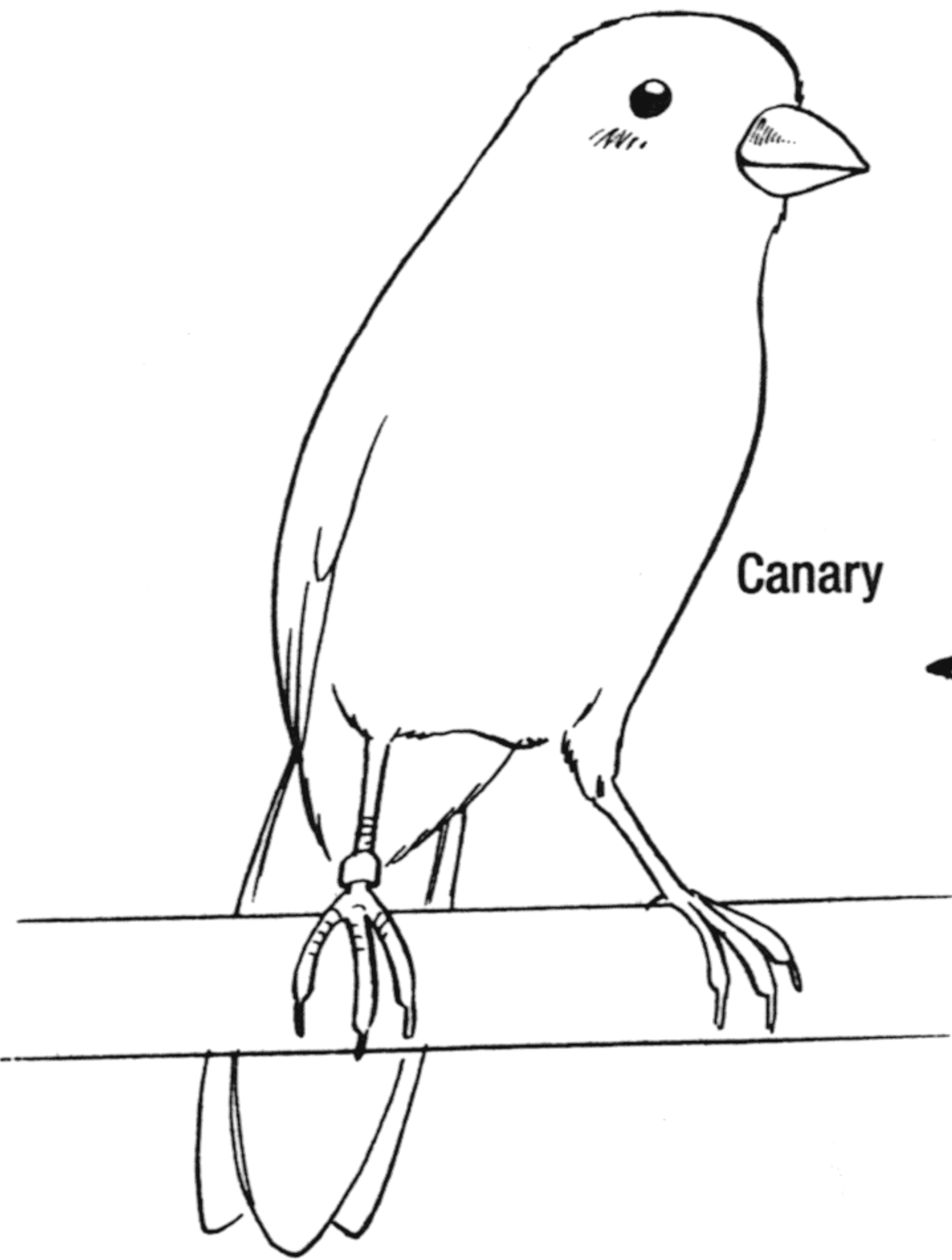
Parakeet feet have two toes in the front and two in the back.

Typically, on each foot members of the finch family have three toes facing forward and one facing rearward.

Sparrows

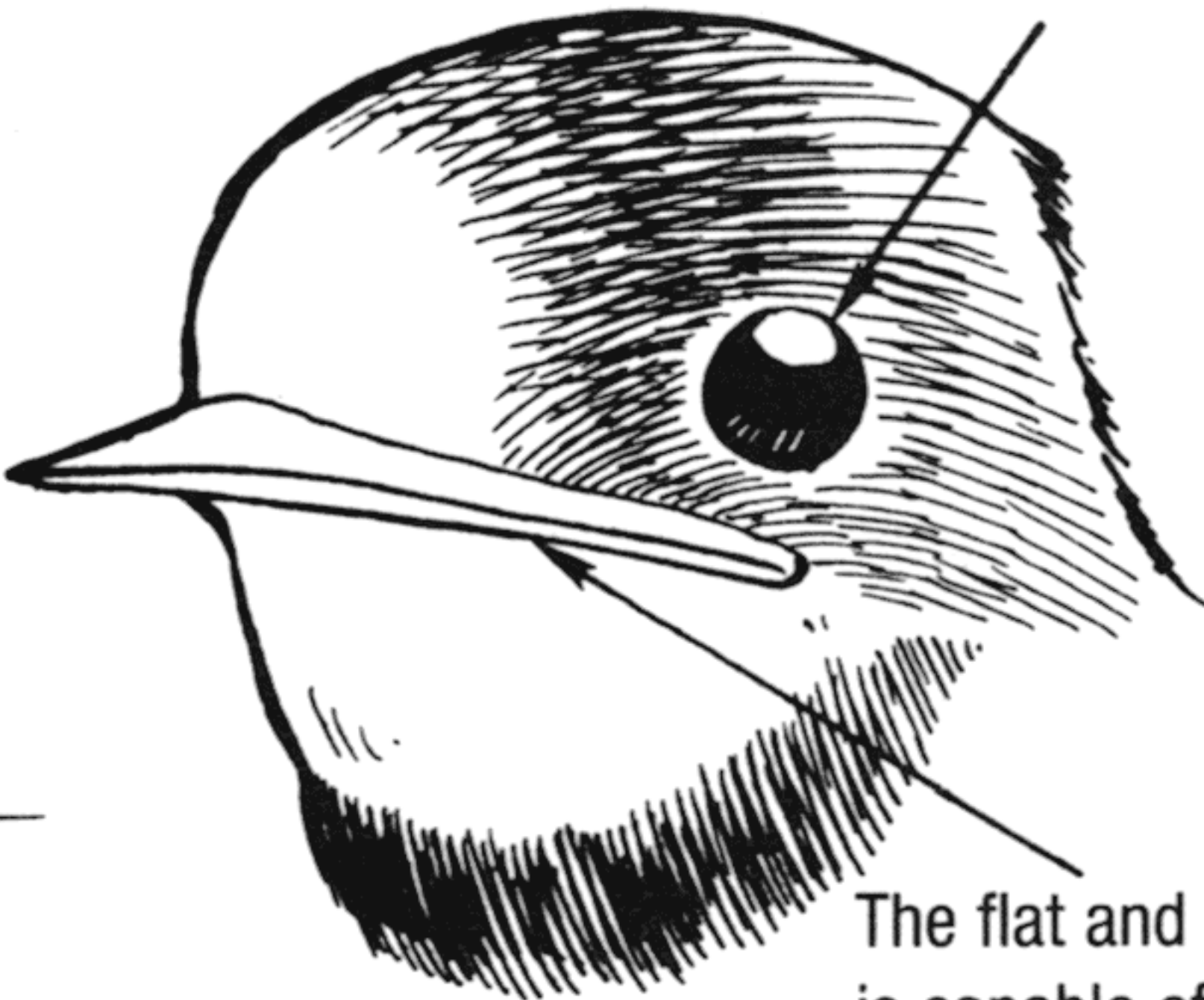
① Sketch the contour lines.

② Add the plumage pattern.

③ Final image

Use cross-hatching to render effectively the head's dark brown coloration.

In the winter, sparrows fluff up their feathers, making them appear rounder.

The beak is small, occupying about 1/4 of the head. Try to make the beak slightly larger than the eyes.

Canary

Swallows

The eyes are perfectly round.

The flat and wide beak is capable of opening to half the size of the entire head.

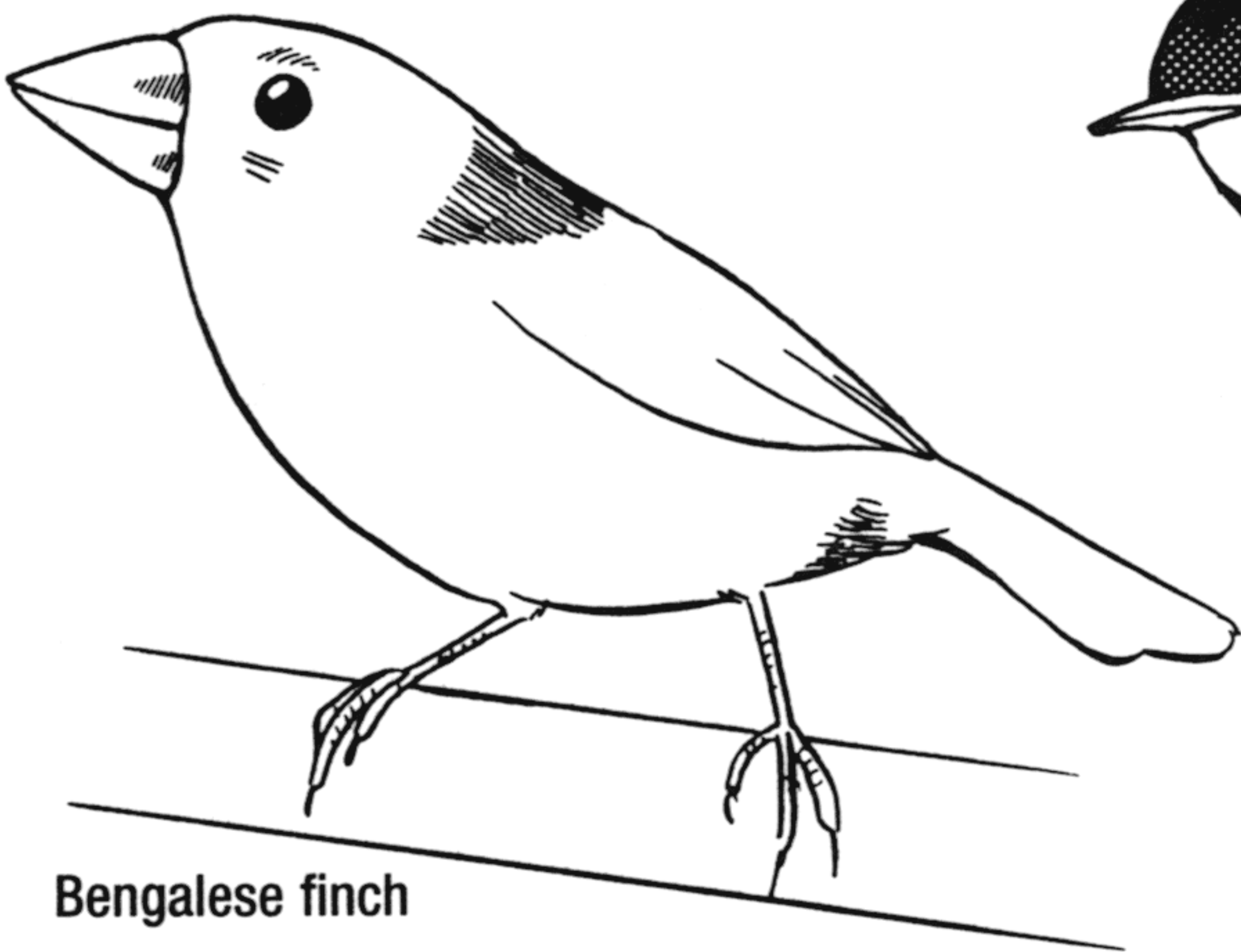
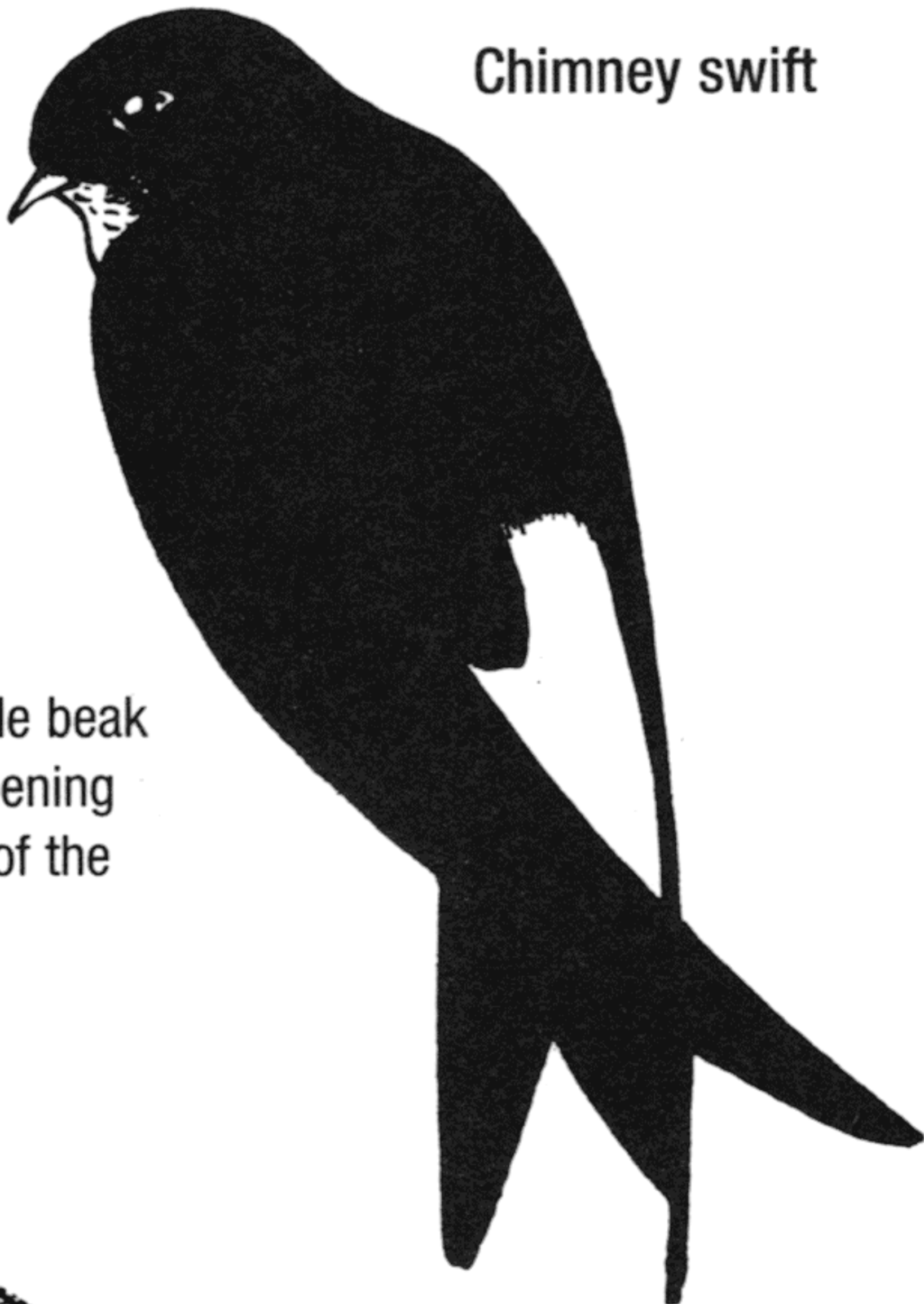
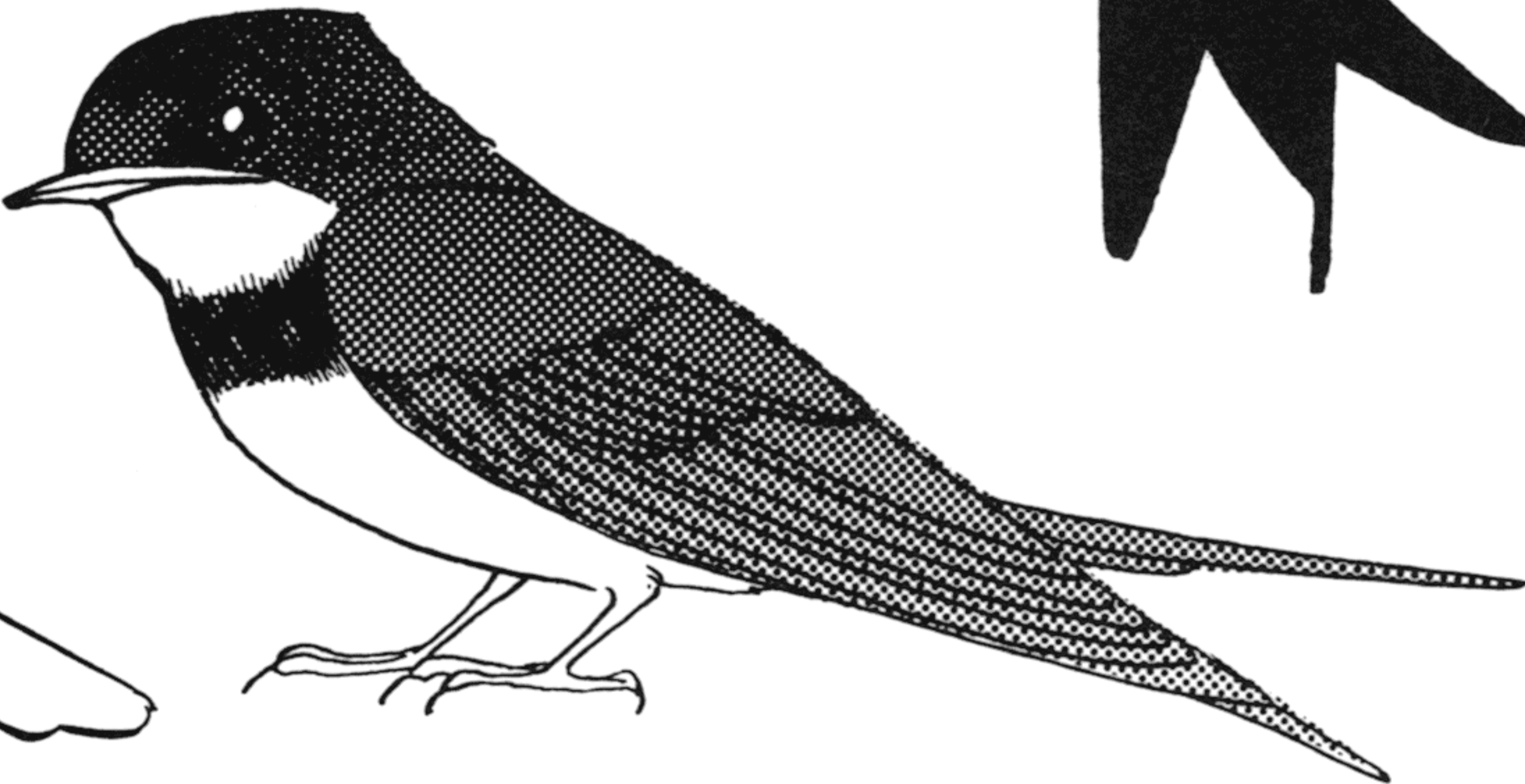
Chimney swift

Bengalese finch

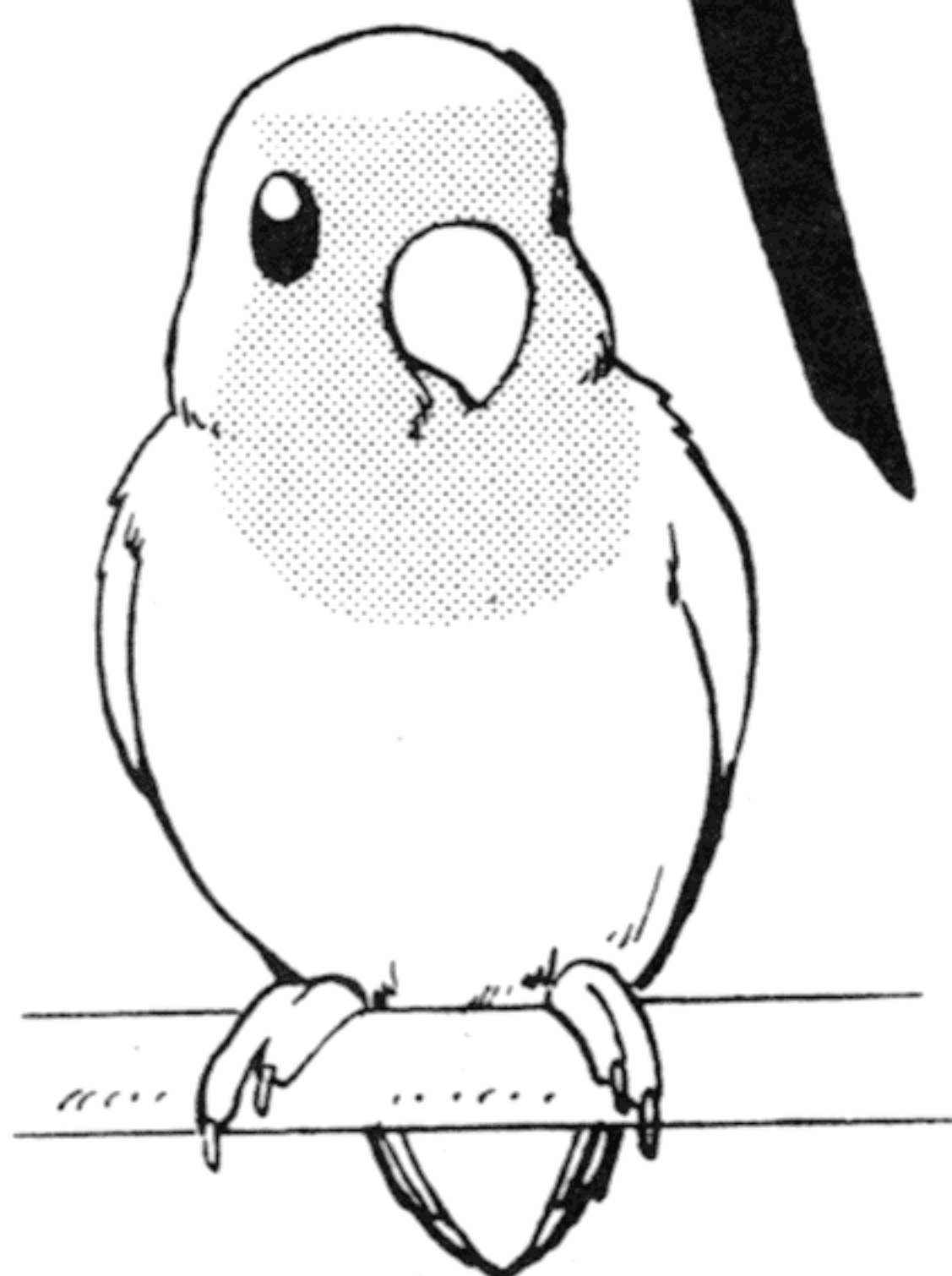
Parakeets

The parakeet's hooked beak forms an inverted triangle.

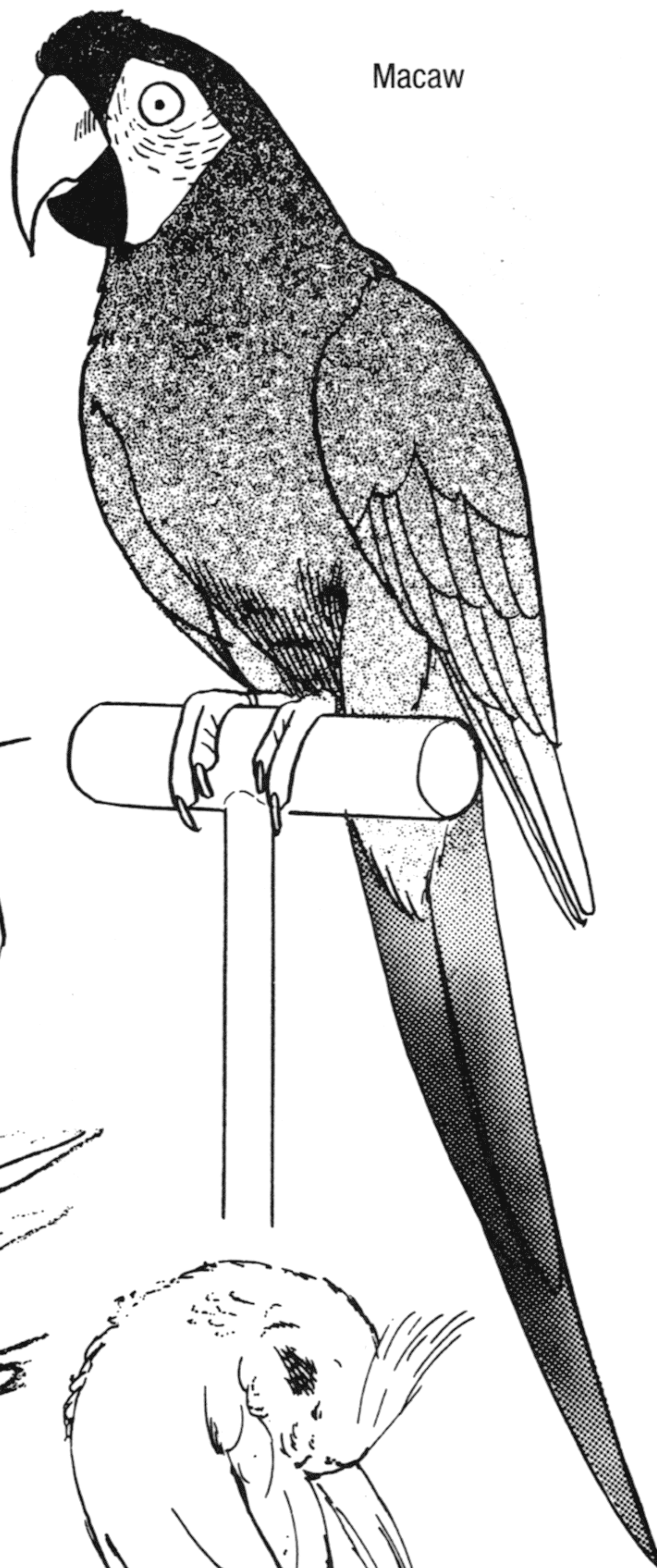
Budgie

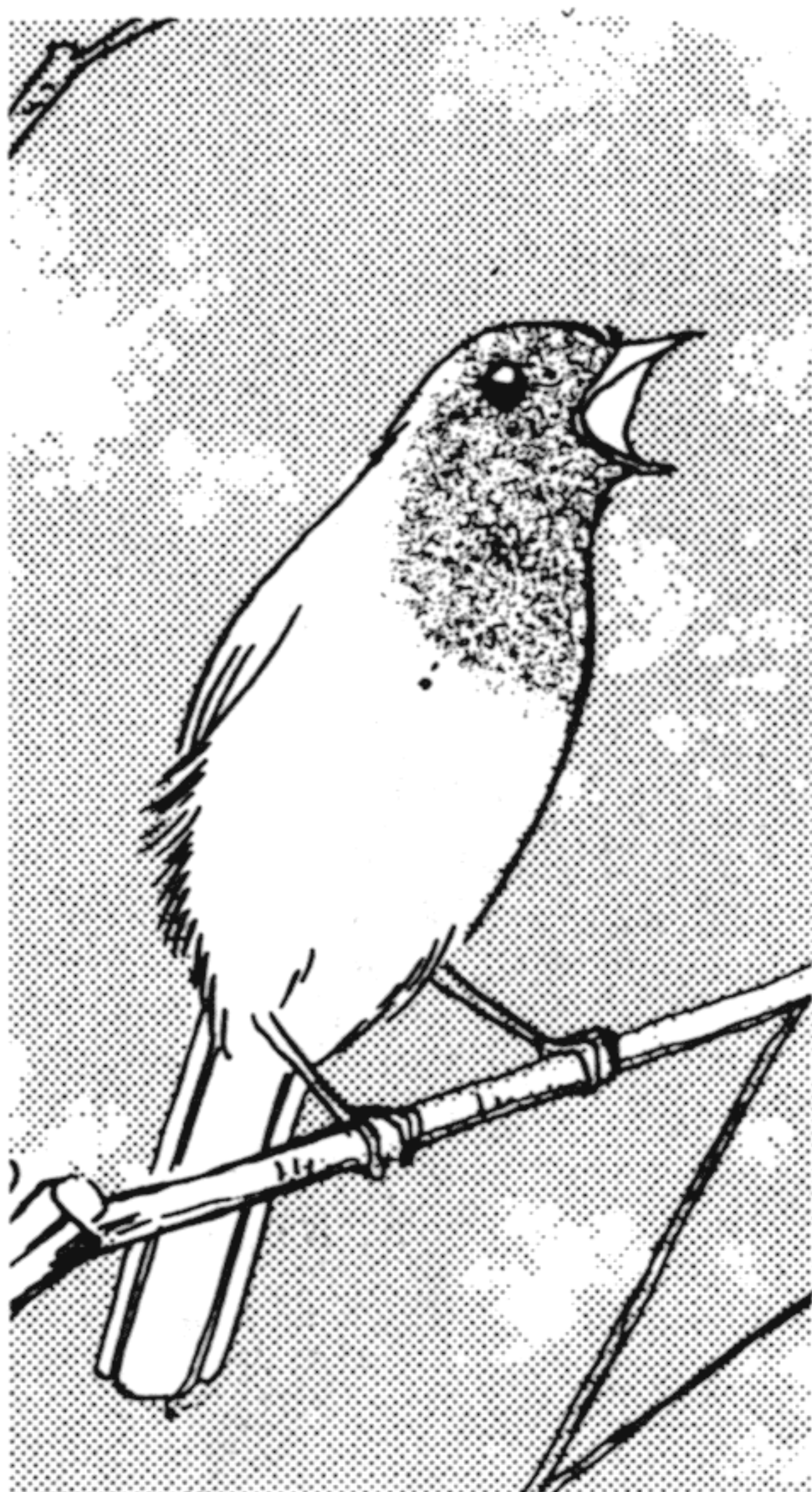
Relatively speaking, the beak occupies about half of the parakeet's face.

The tips of the wing are crossed.

The tail comprises half of the figure overall. The body up to the base of the tail has a head-to-body ratio of 1:3.

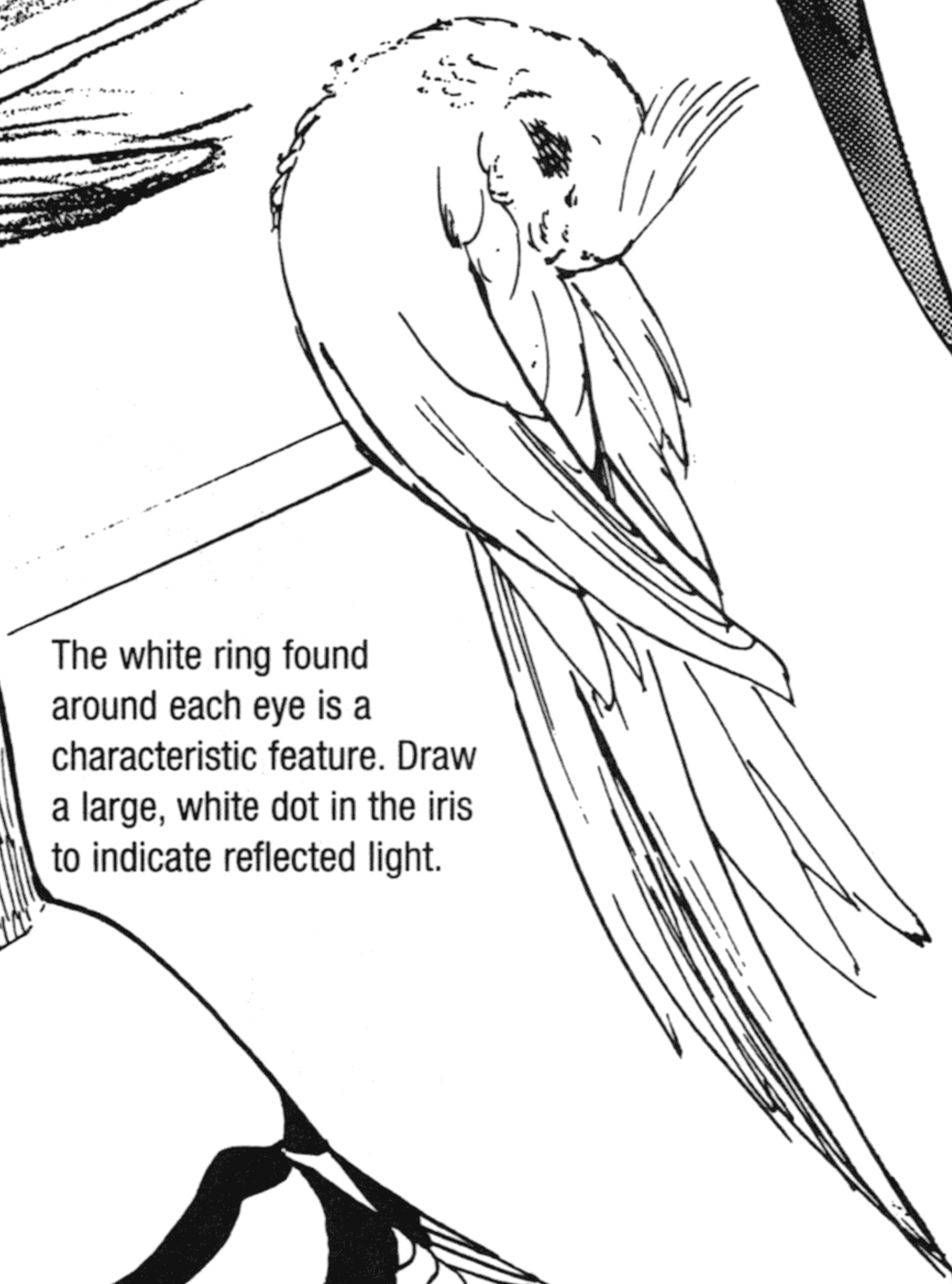
Lovebird

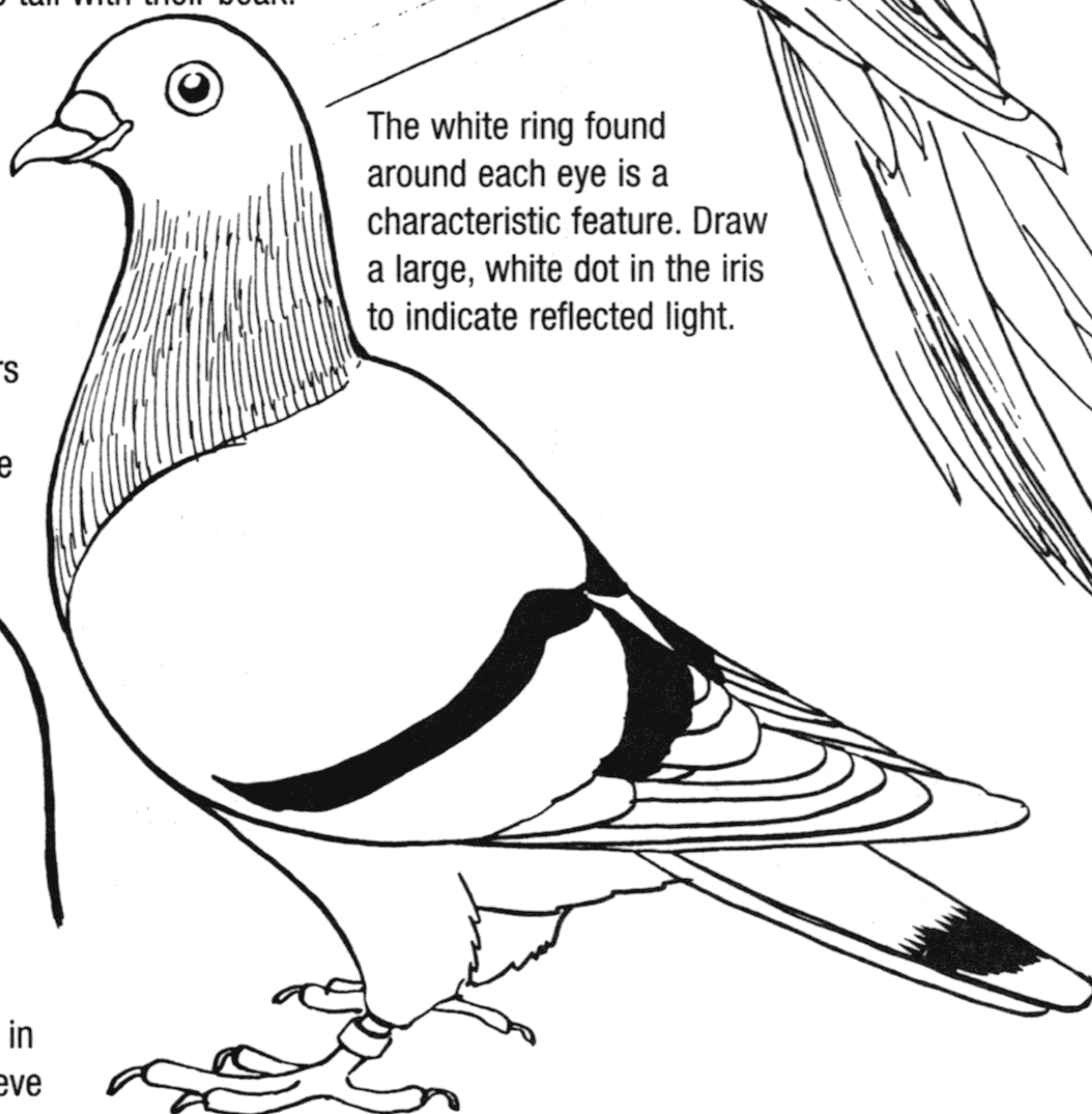
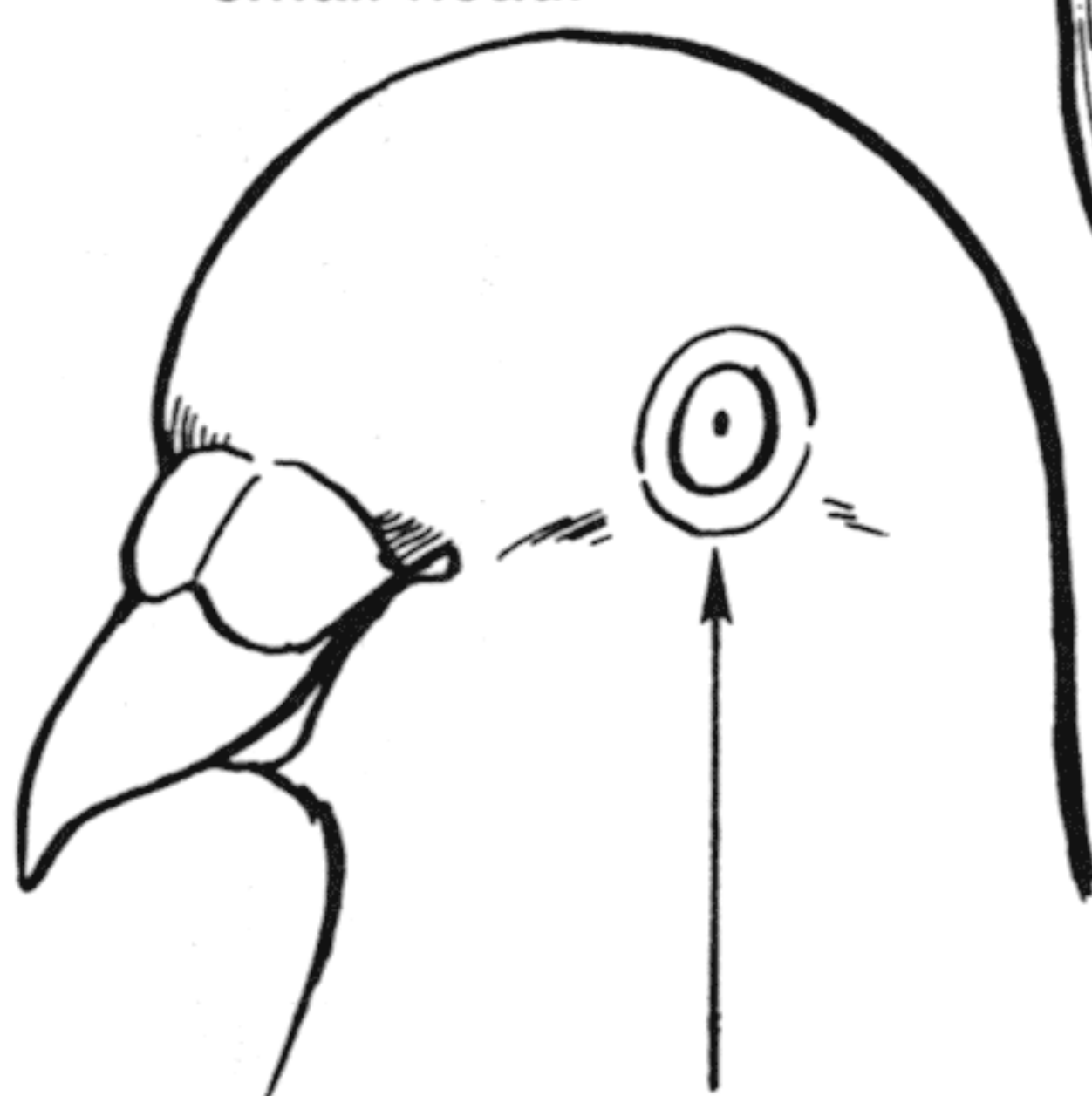
Cockatiel (lutino cockatiel)

Peach-faced lovebird

Conure

Cockatoo

Macaw

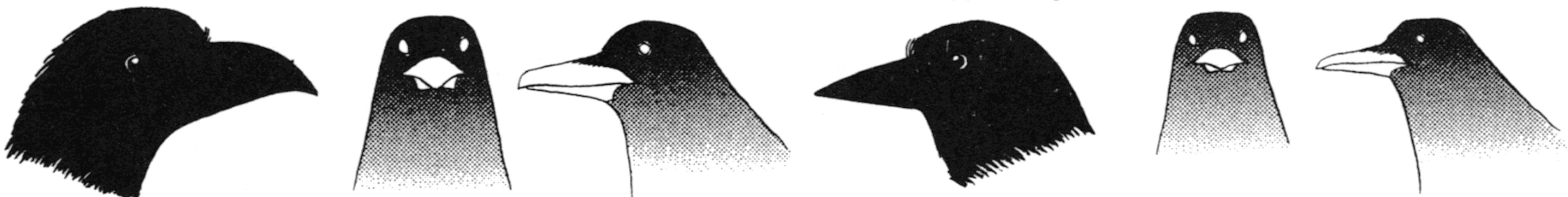
Yellow-cheeked Amazon

These birds are capable of rotating their heads 180º and can bend their body to touch the base of the tail with their beak.

Japanese robin

The white ring found around each eye is a characteristic feature. Draw a large, white dot in the iris to indicate reflected light.

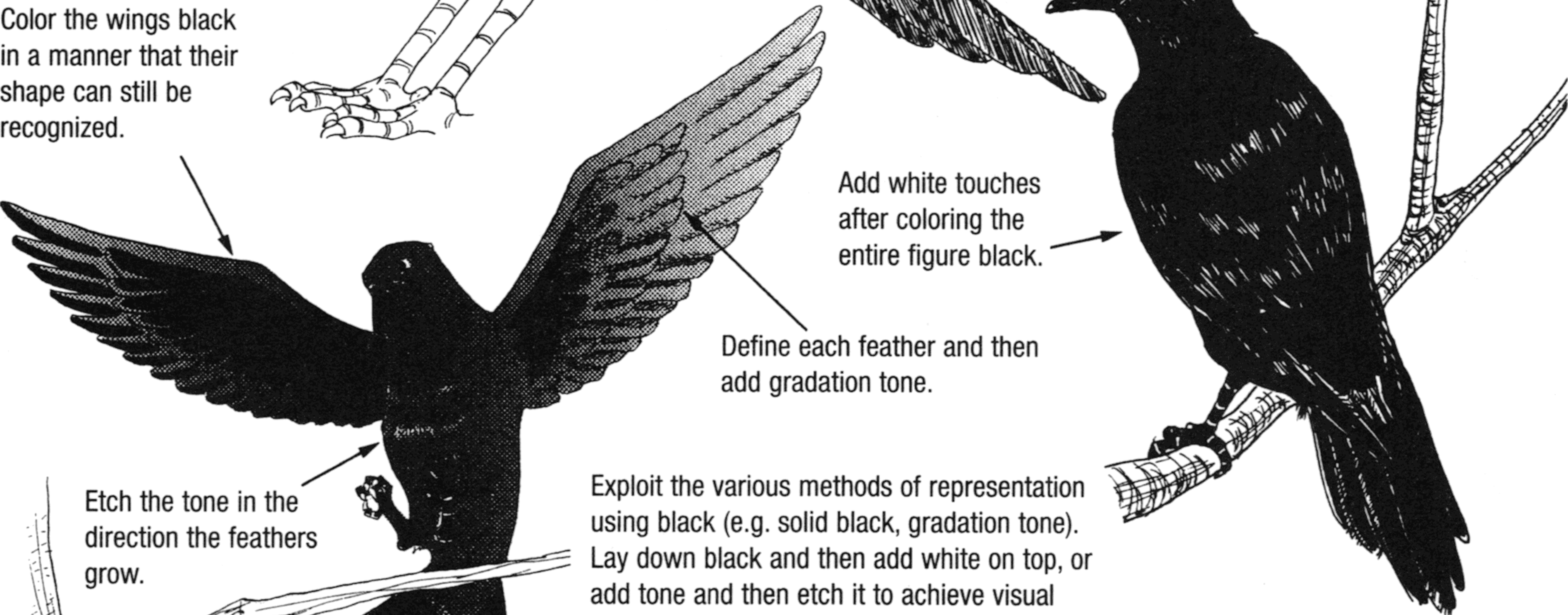
Use undulating contours from the dramatically puffed-out breast to the small head.

Pigeons

Draw a tiny dot for the pupil in the center of the iris to achieve that distinctly pigeon-esque look.

Crows

Distinguish the different species of crows through the thickness of the beak.

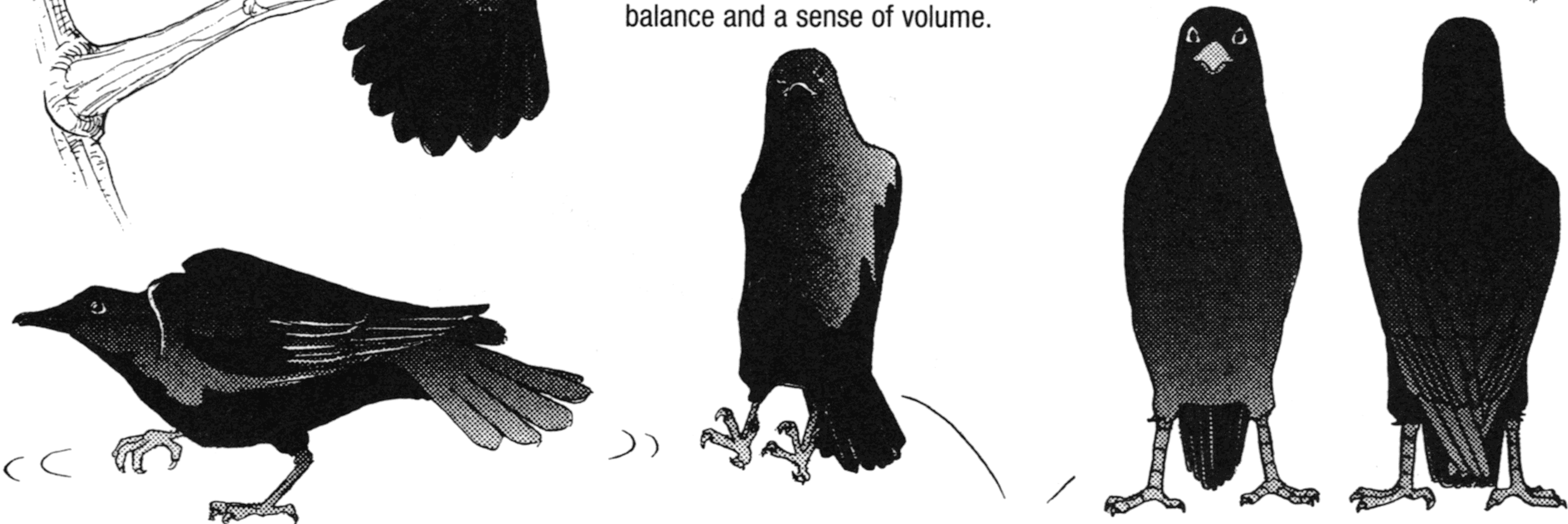
Slender beak: Carrion crow
Thick beak: Jungle crow
Both do appear together in a flock.

Jungle crow

Carrion crow

Color the wings black in a manner that their shape can still be recognized.

Add white touches after coloring the entire figure black.

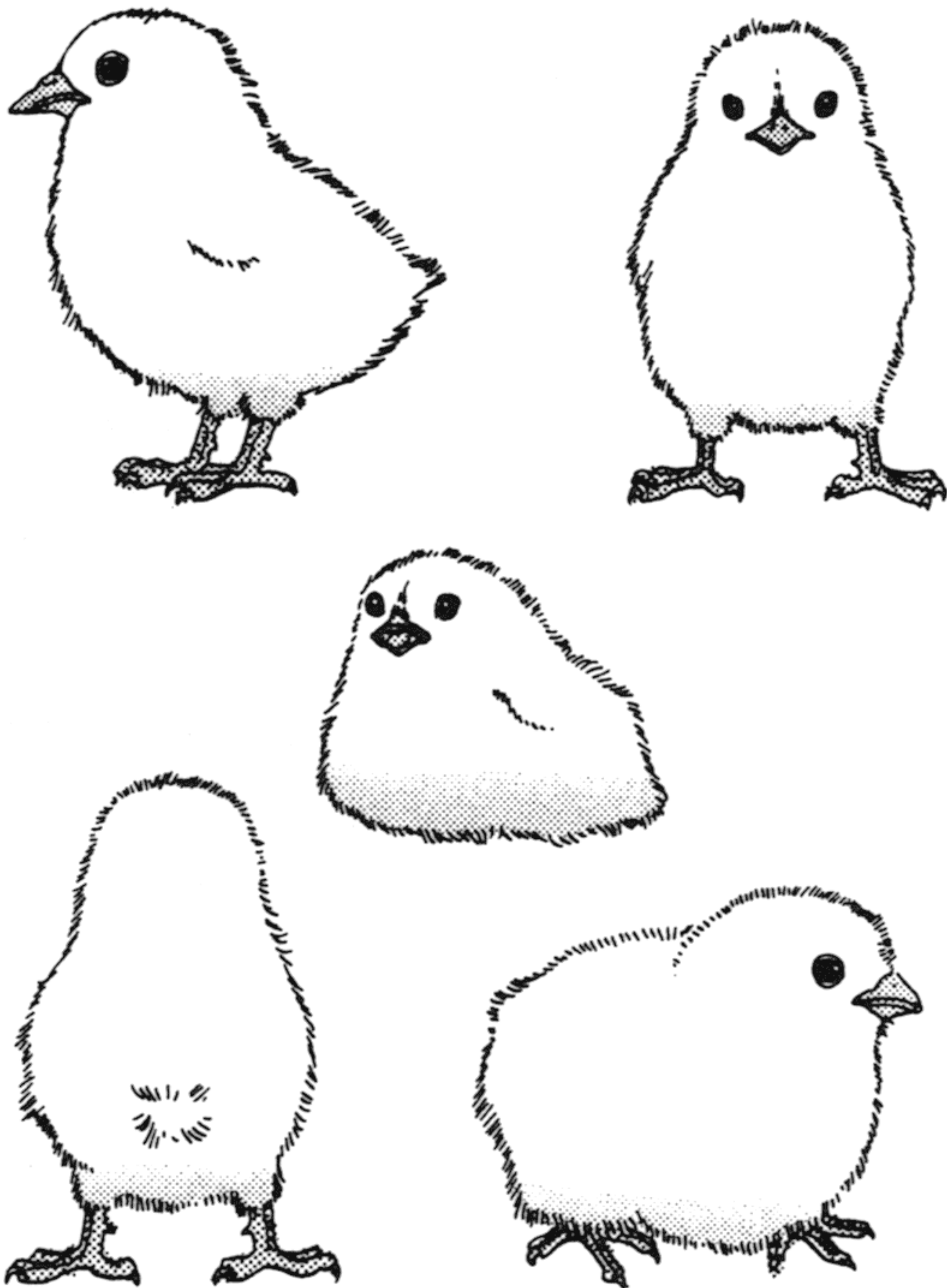
Define each feather and then add gradation tone.

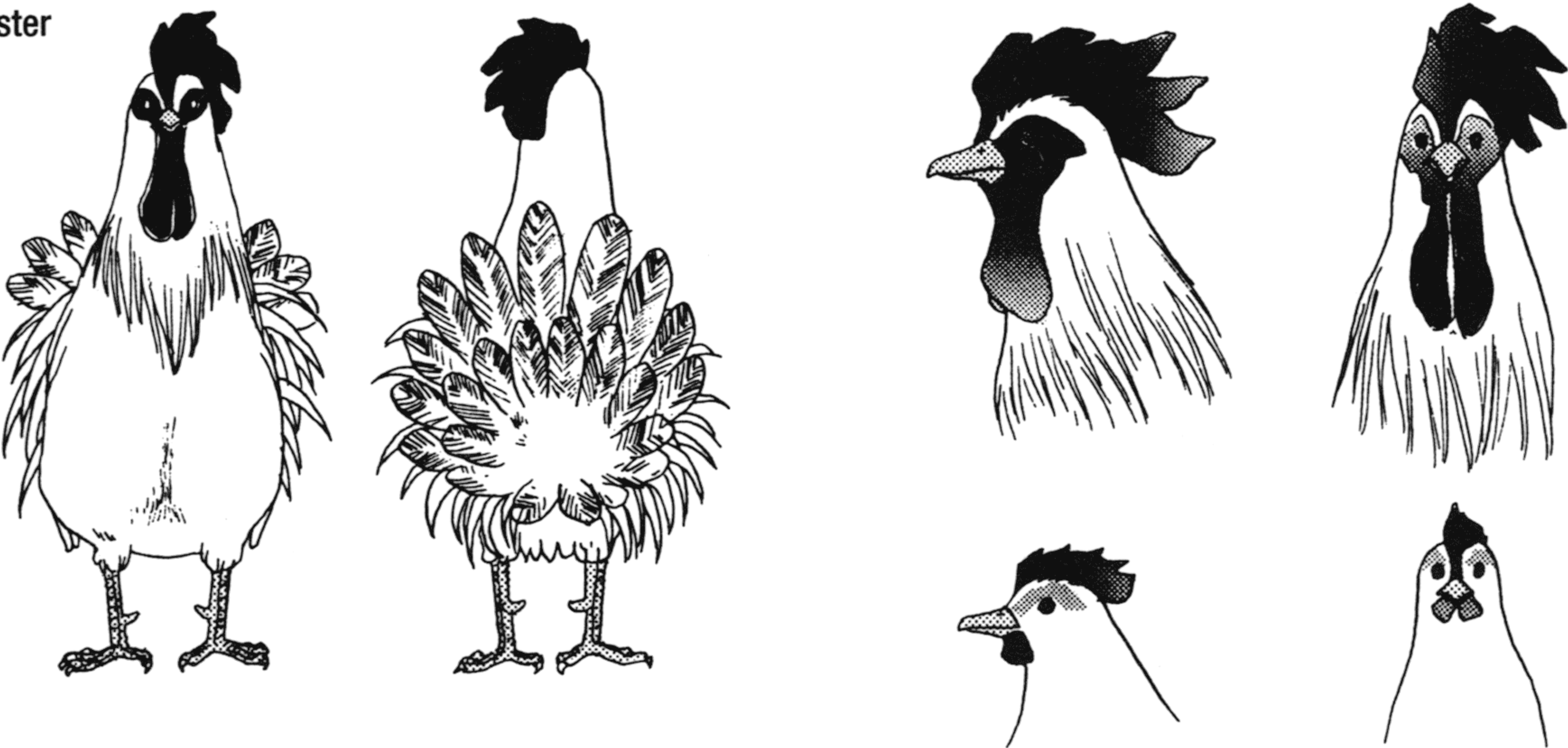
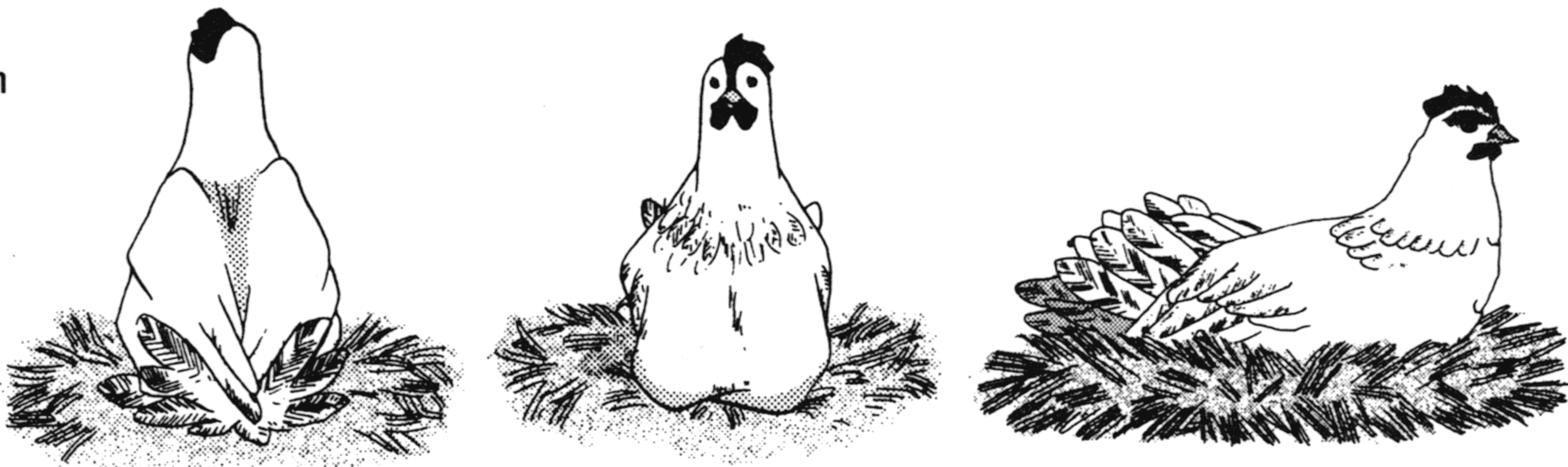
Etch the tone in the direction the feathers grow.

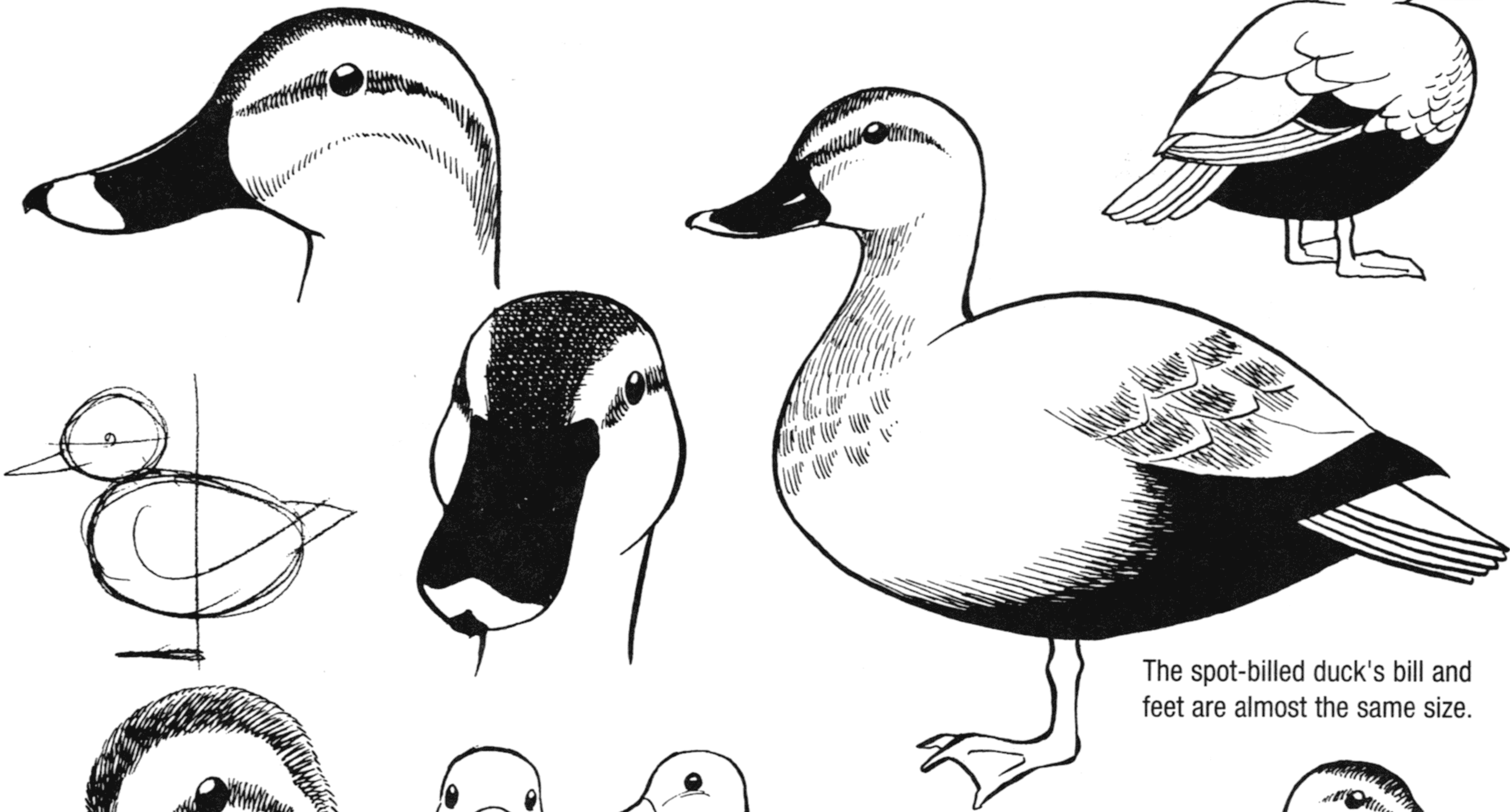
Exploit the various methods of representation using black (e.g. solid black, gradation tone). Lay down black and then add white on top, or add tone and then etch it to achieve visual balance and a sense of volume.

Chickens

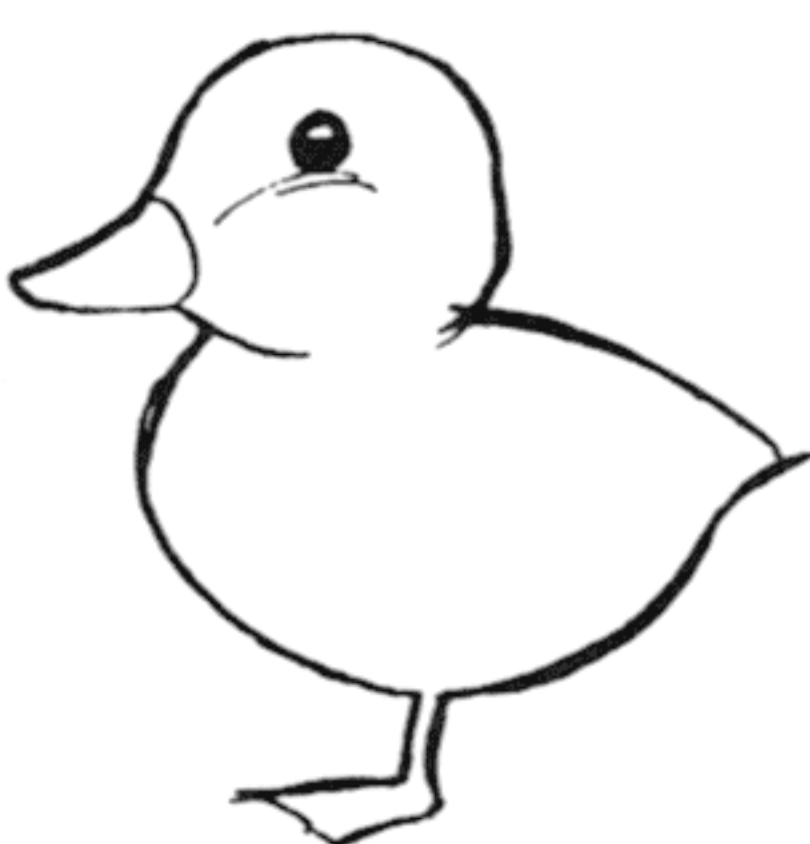
Maintaining the hen's comb at about 1/2 to 1/3 the size of the rooster's will allow you to distinguish between the two.

Chick

These lines for furrows in the skin give the legs a sense of sturdiness.

Avoid using clearly defined contour lines, but instead use diagonal hatching to create the feel of a downy chick.

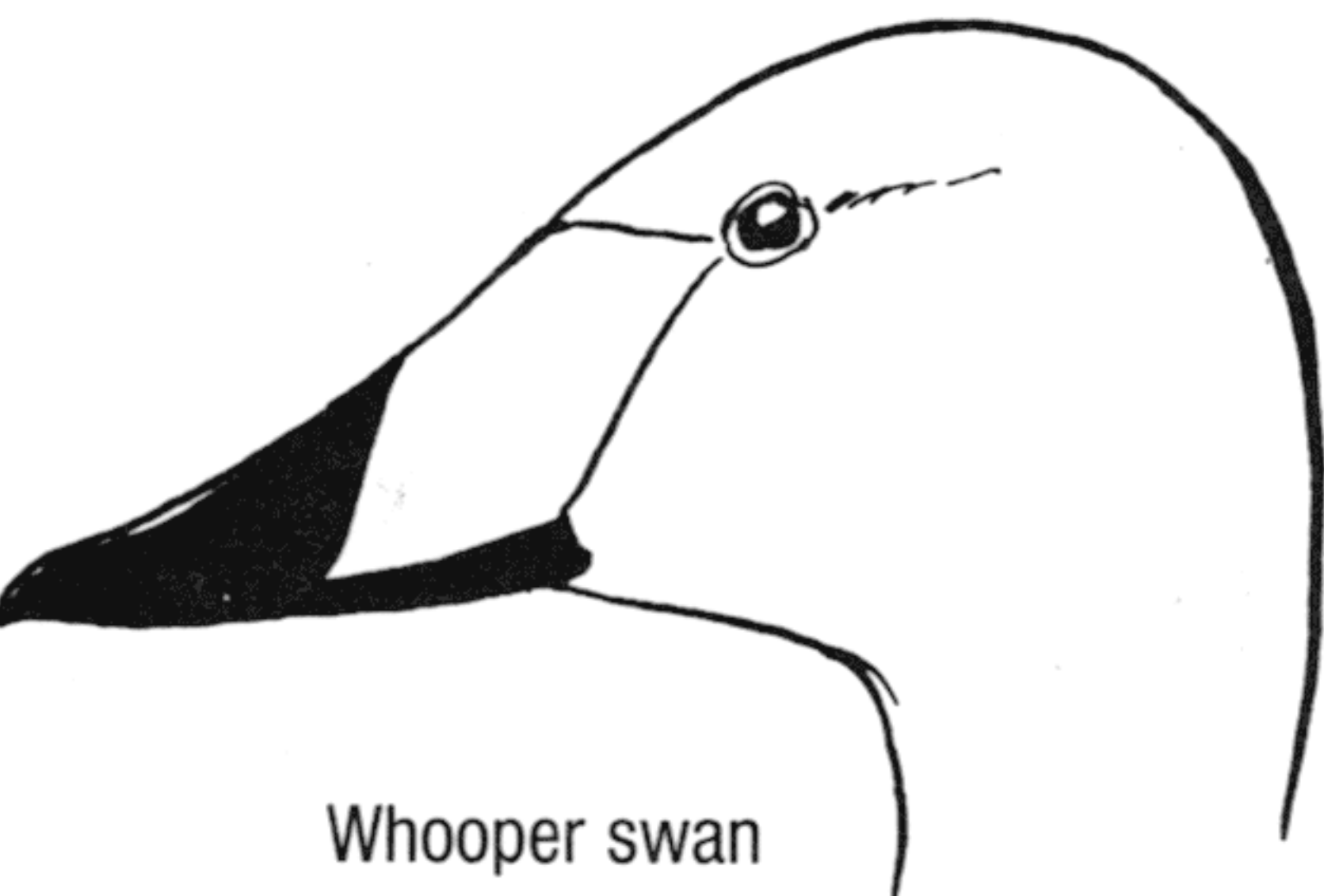
Rooster

Hen

Waterfowl

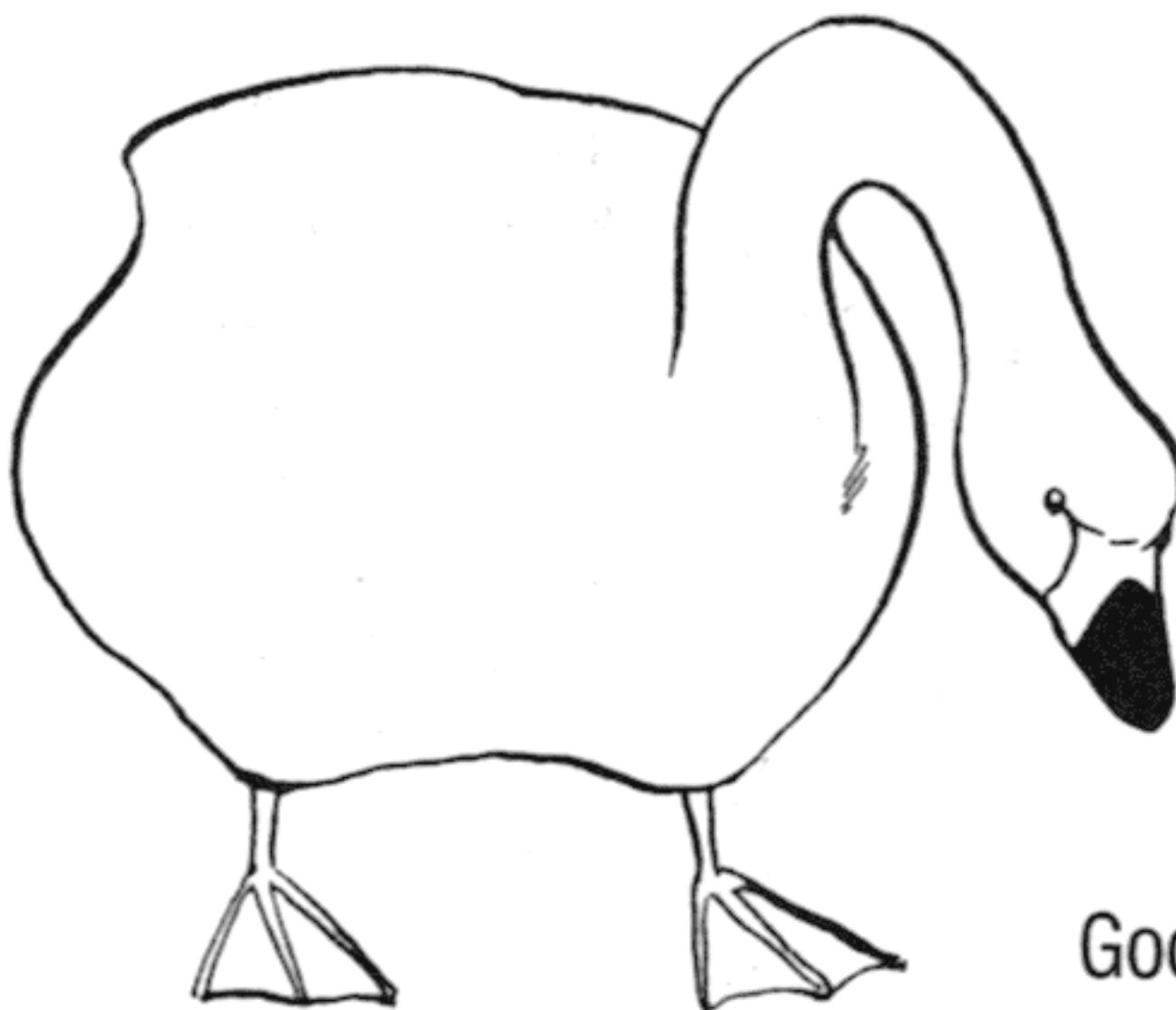
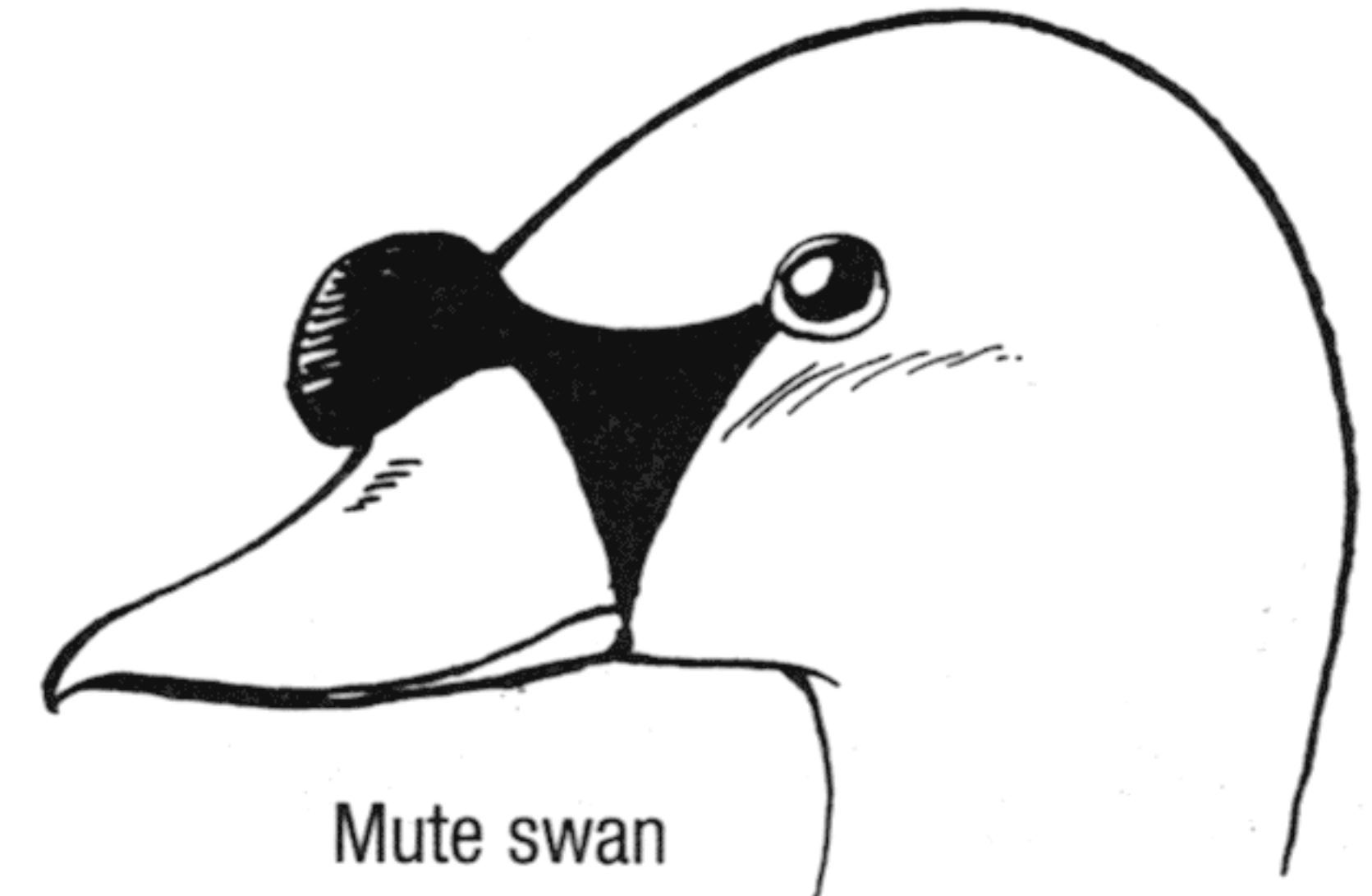
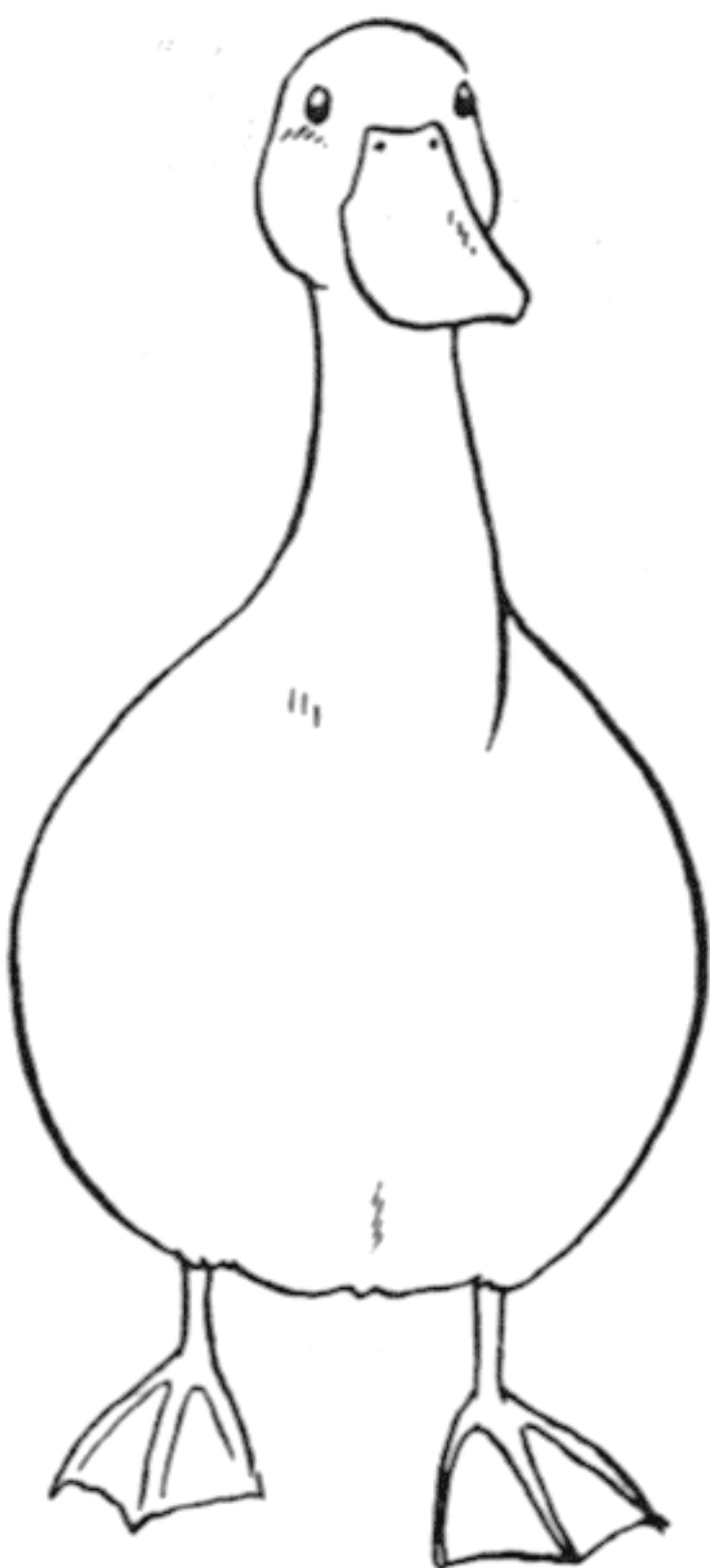
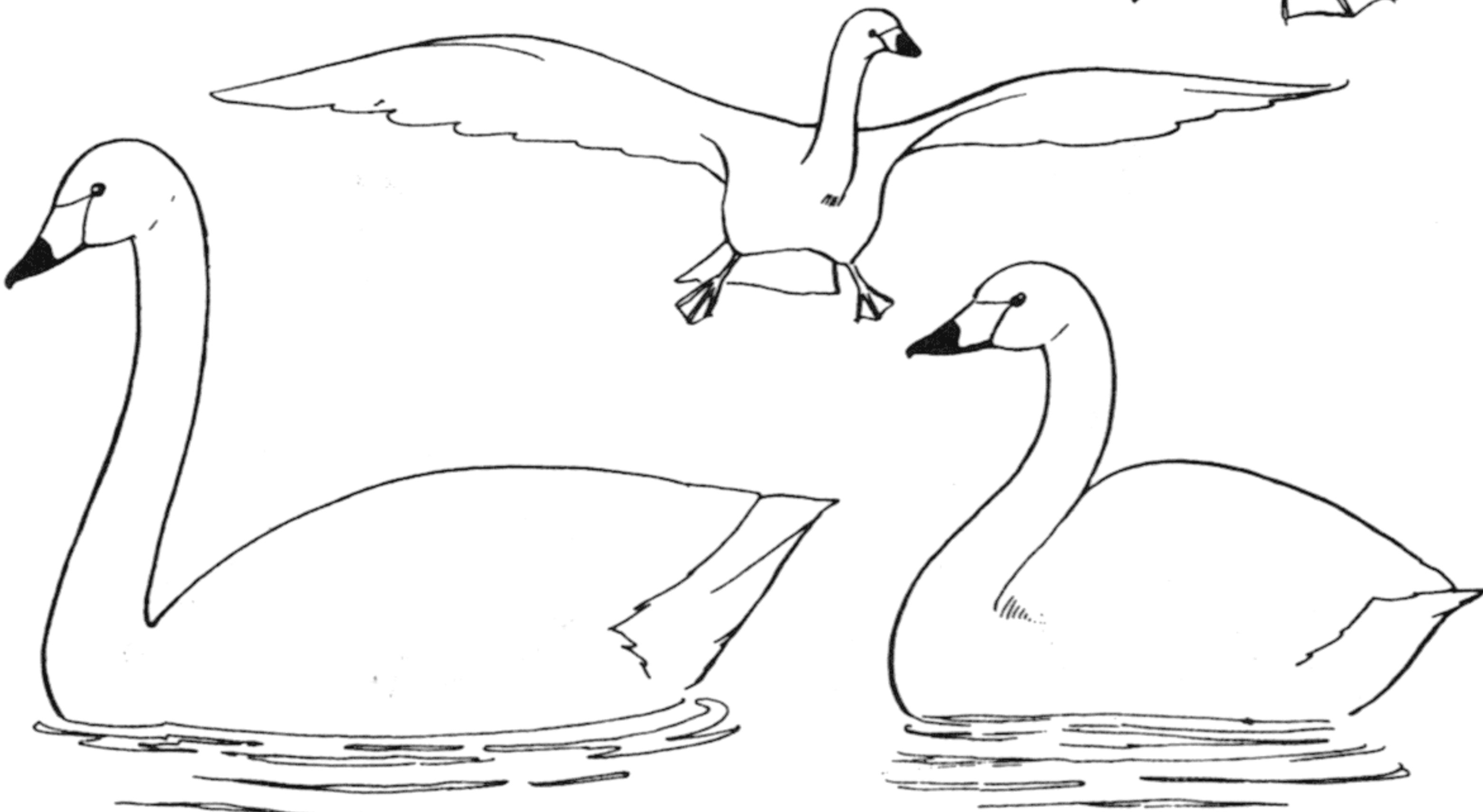
Attach a shoehorn to an egg-shaped head, and voila! A water bird.

The spot-billed duck's bill and feet are almost the same size.

Spot-billed duckling

1/3 of the body obscured by water.

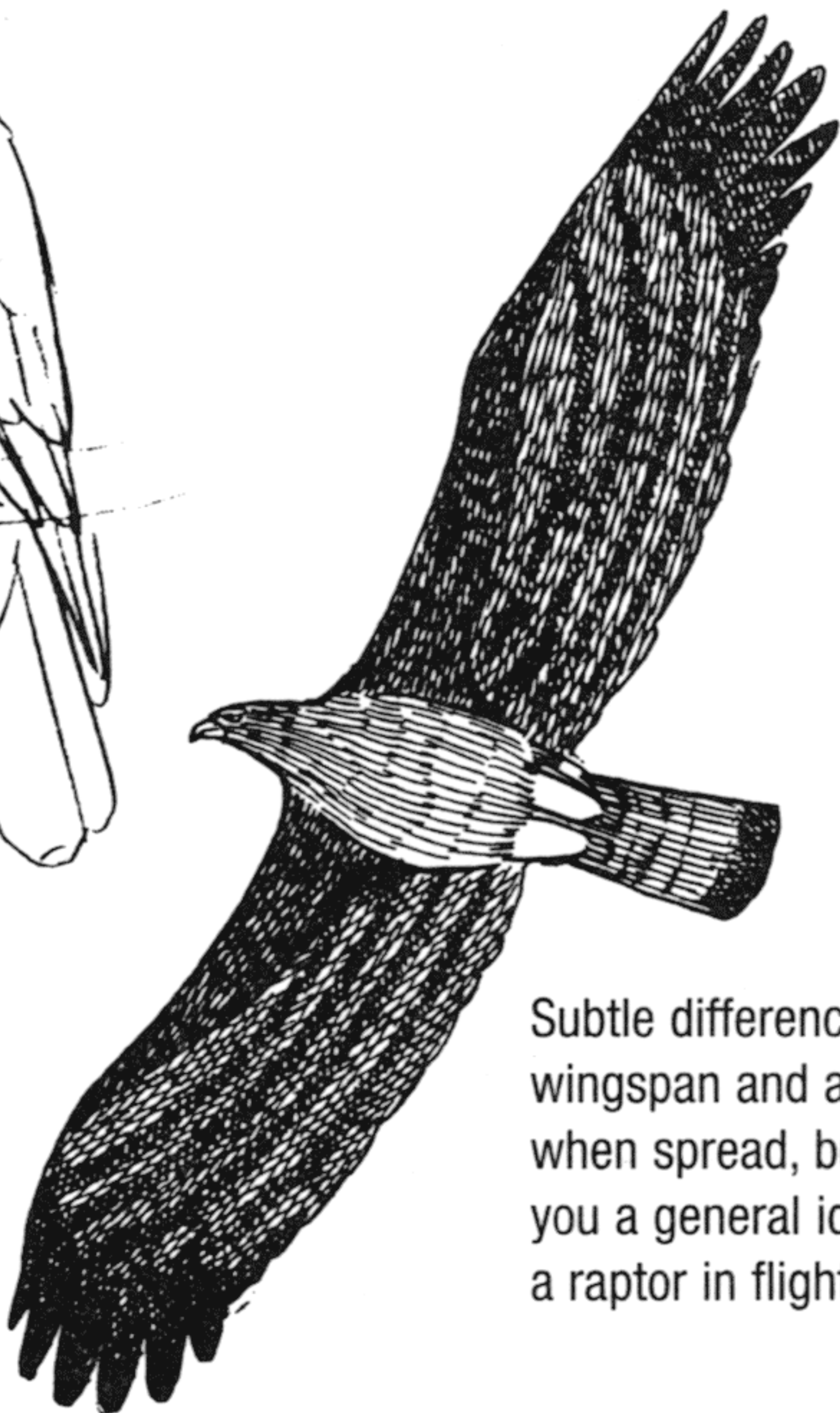
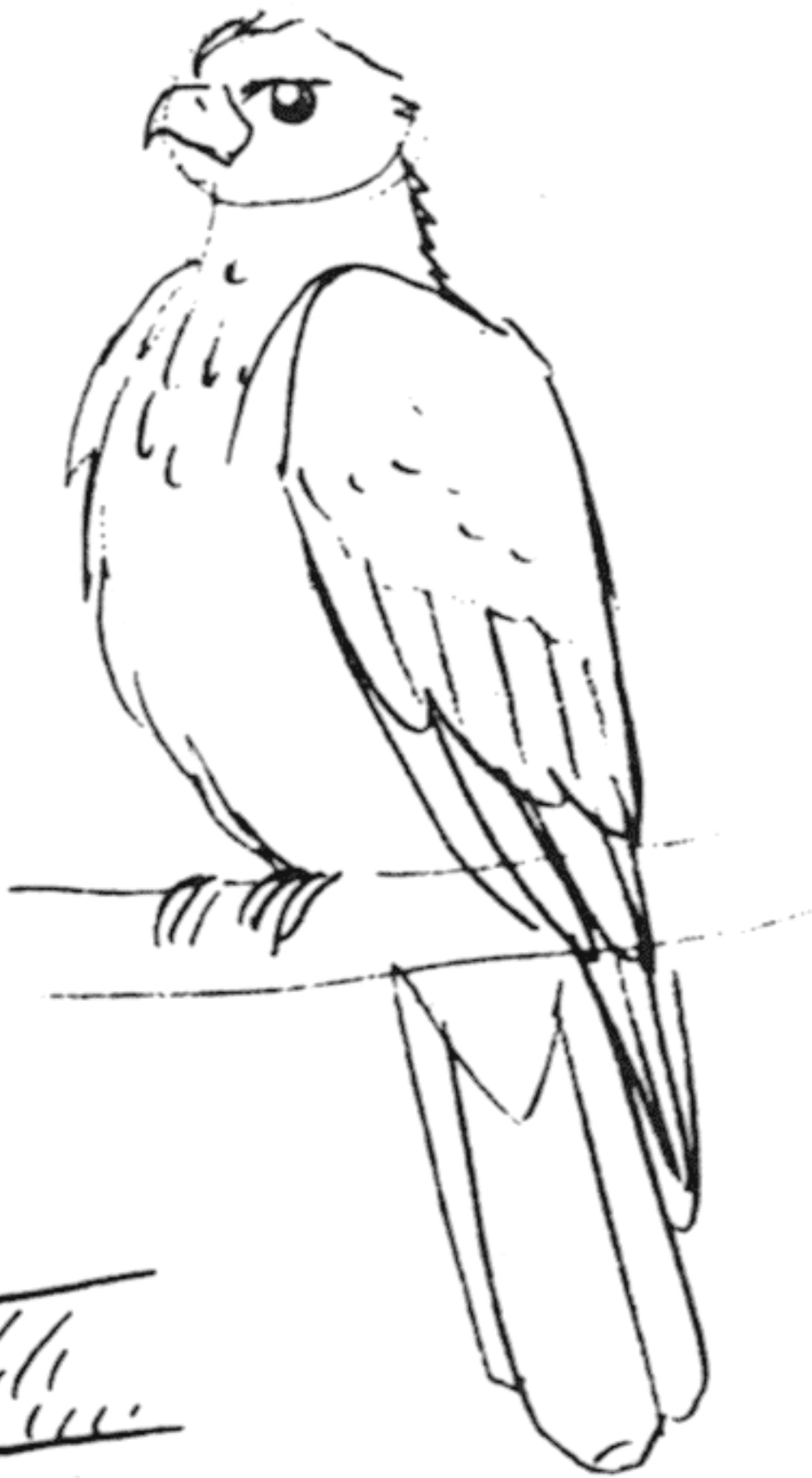
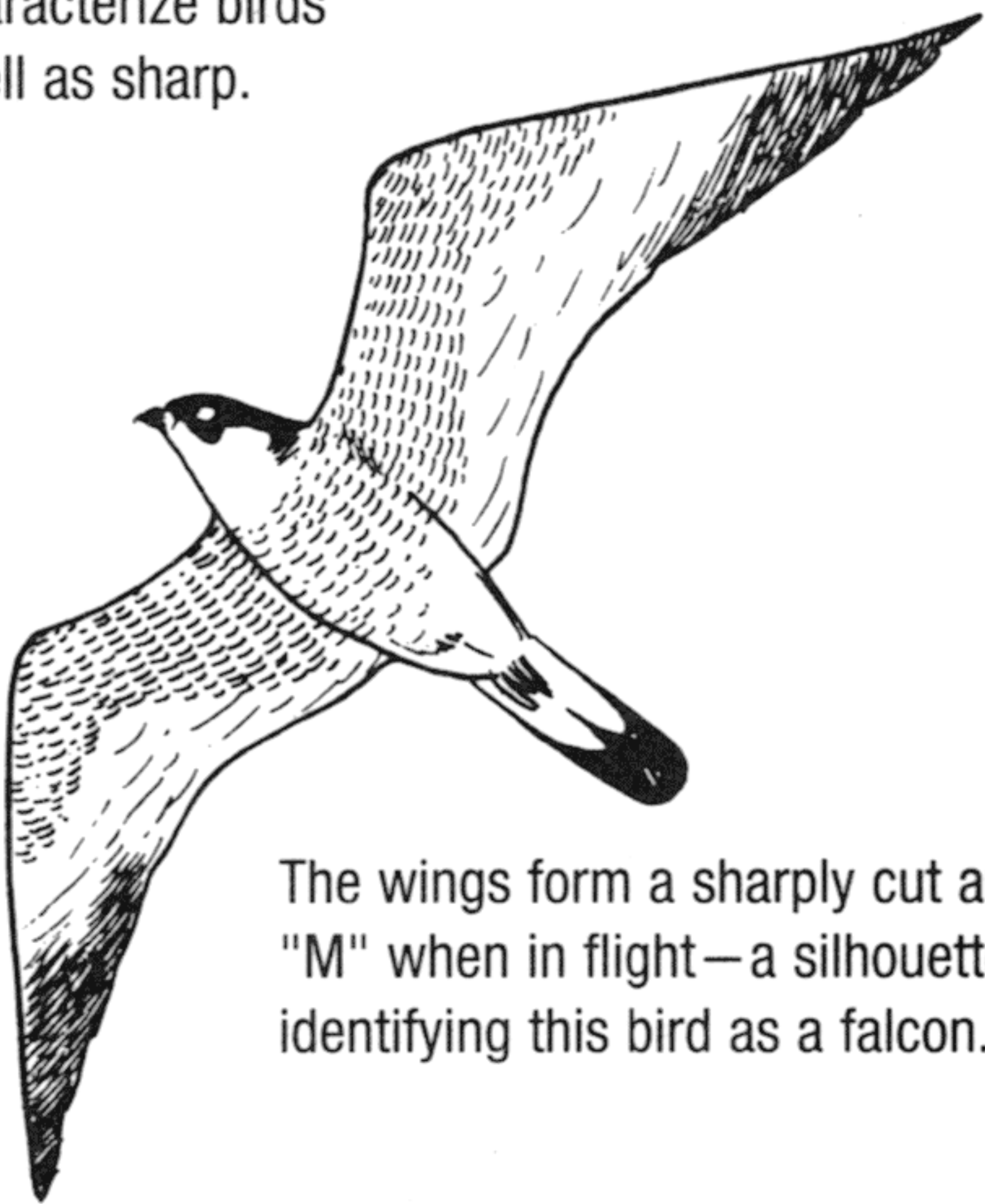
Land fowl

Waterfowl

The legs of a common land bird attaches obliquely to the body. The head is thrust forward, and the figure overall has a forward leaning appearance.
In contrast, water birds stand straight with their heads slightly shifted to the rear.

Goose

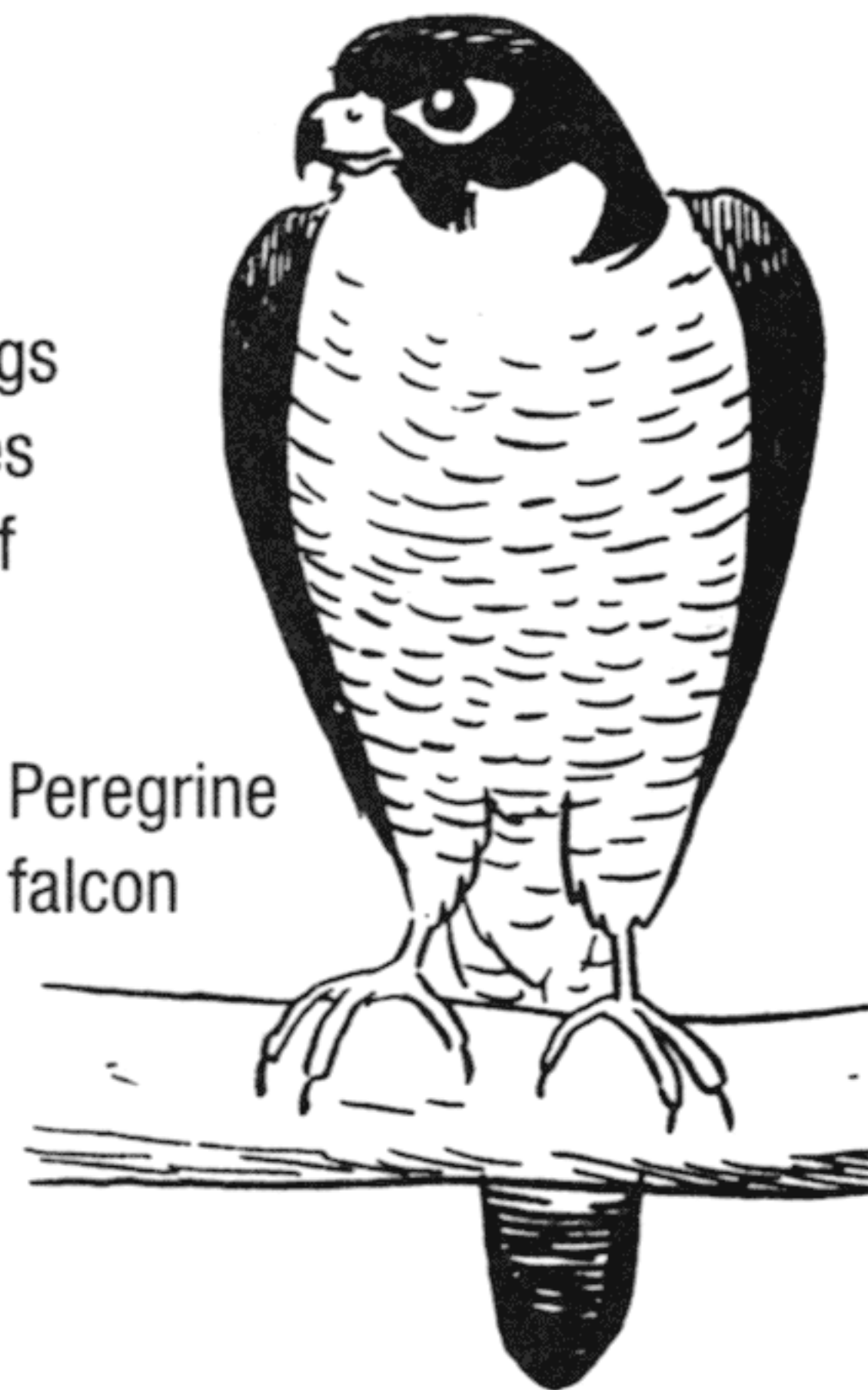
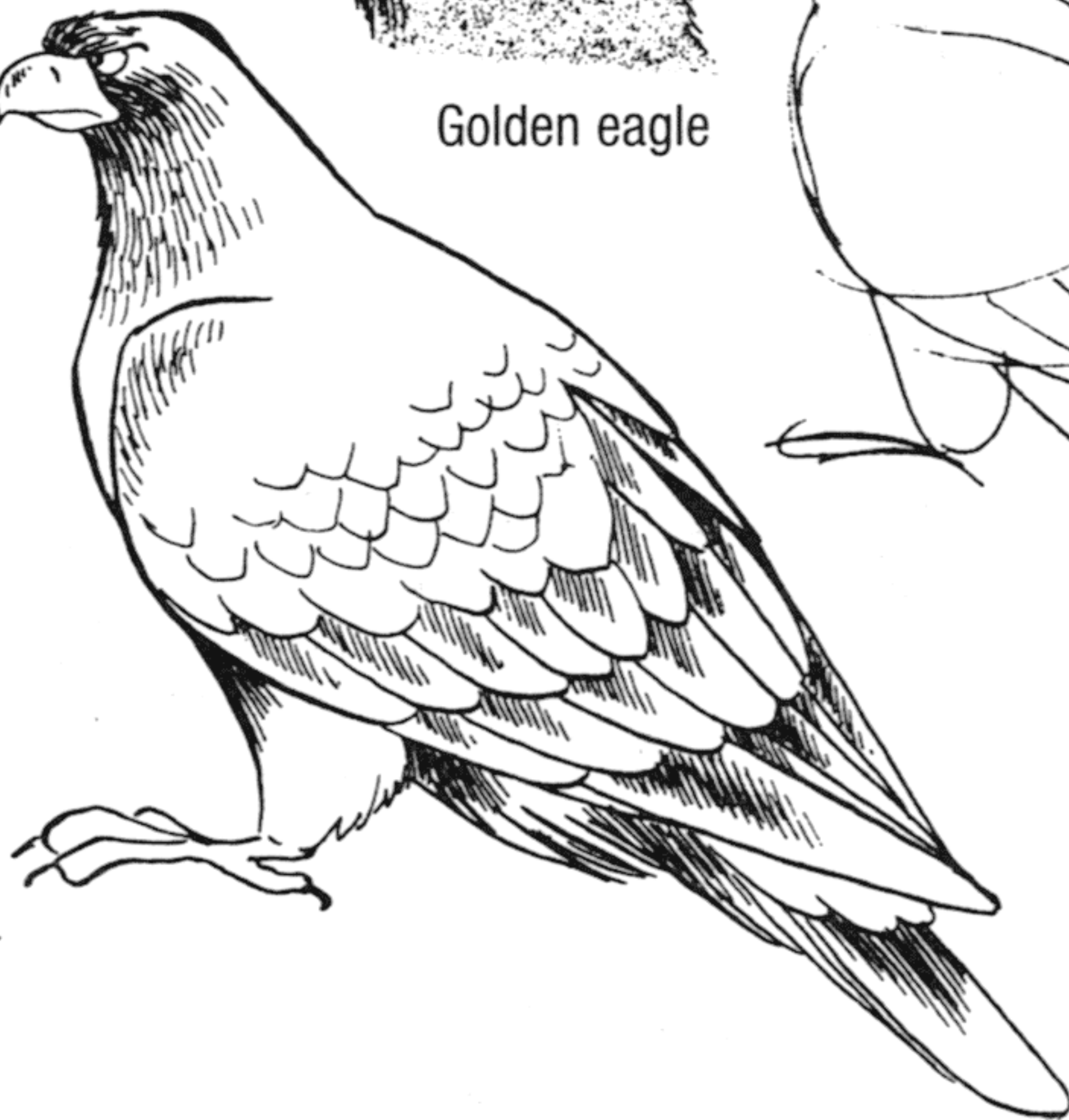
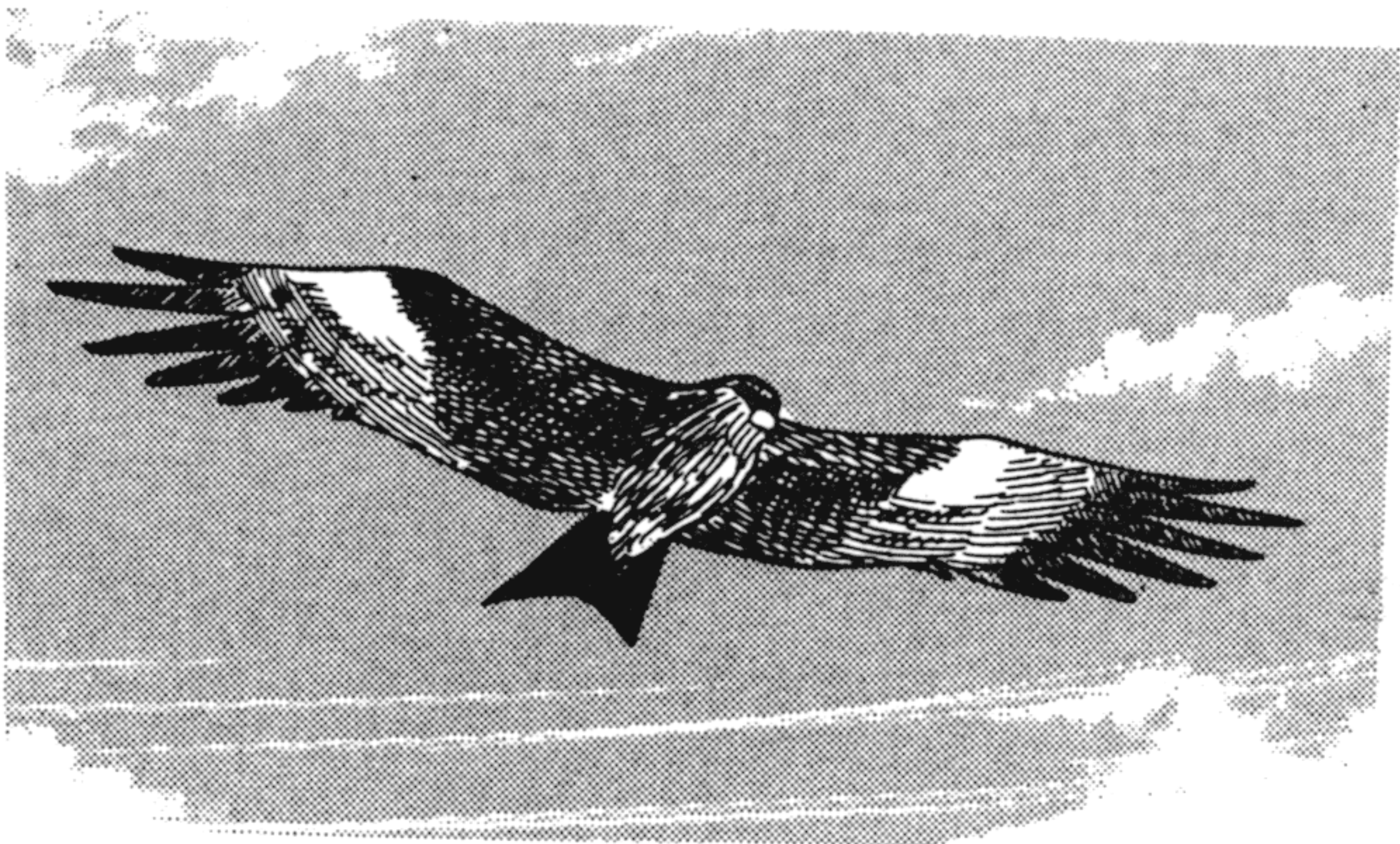
Whooper swan

Mute swan

Raptors

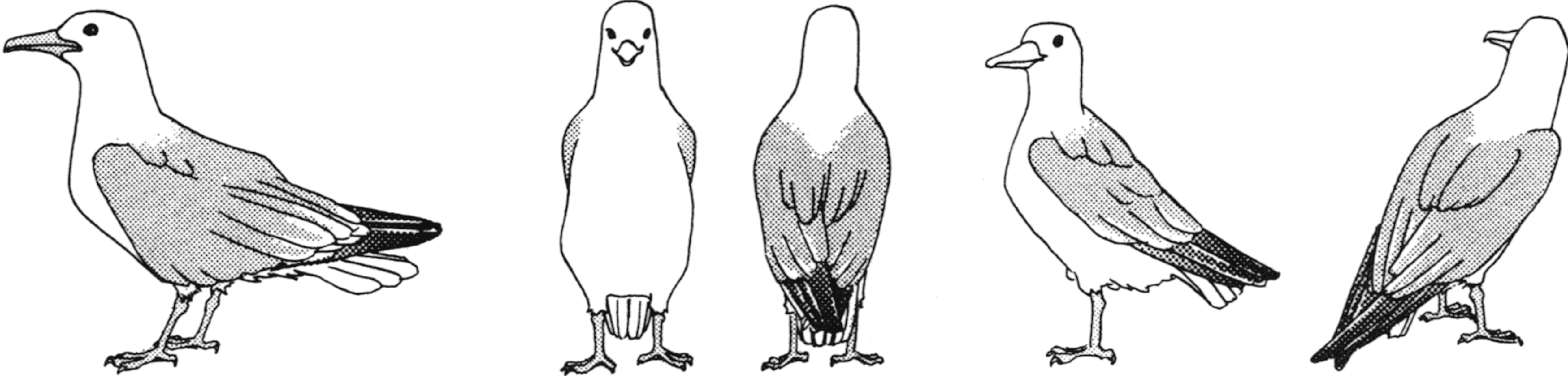
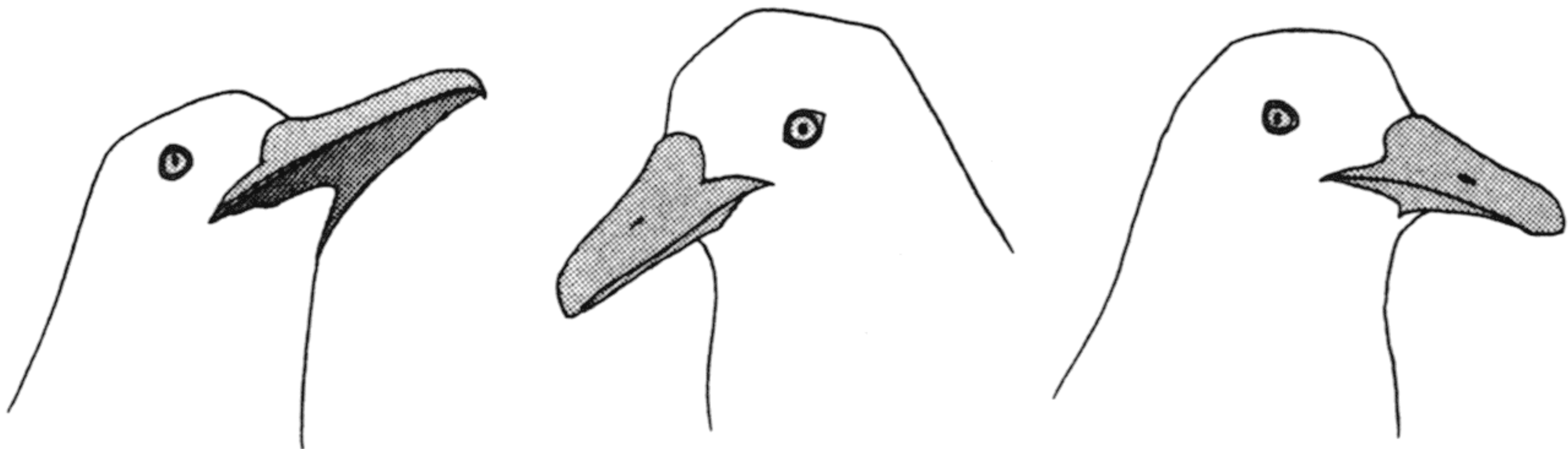
Thick necks, puffed up breasts, wide shoulders, and broad wingspans characterize birds of prey. Draw these birds with hooked beaks that are likewise thick as well as sharp.

Kite

Subtle differences exist in the wingspan and appearance of the wings when spread, but this image still gives you a general idea of the silhouette of a raptor in flight.

The wings form a sharply cut an "M" when in flight—a silhouette identifying this bird as a falcon.

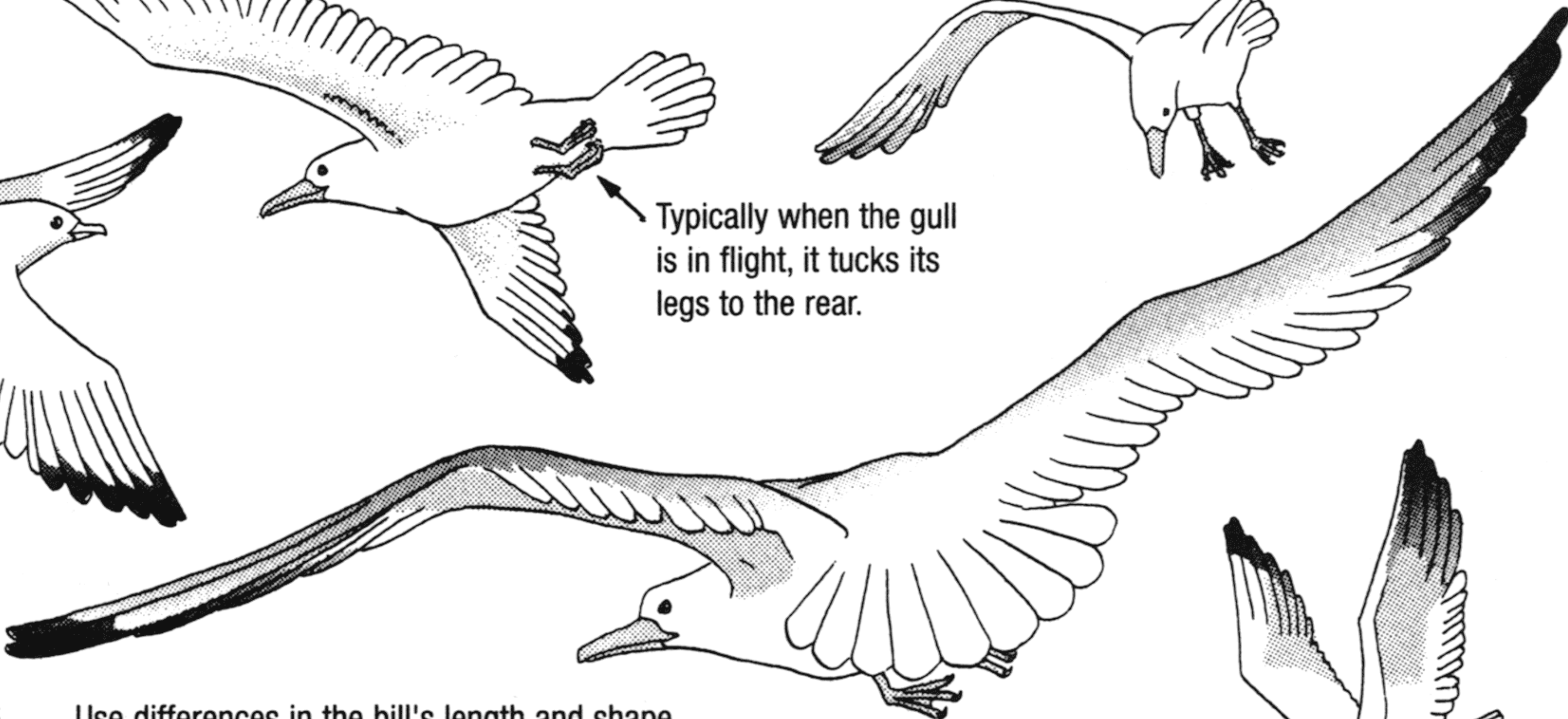
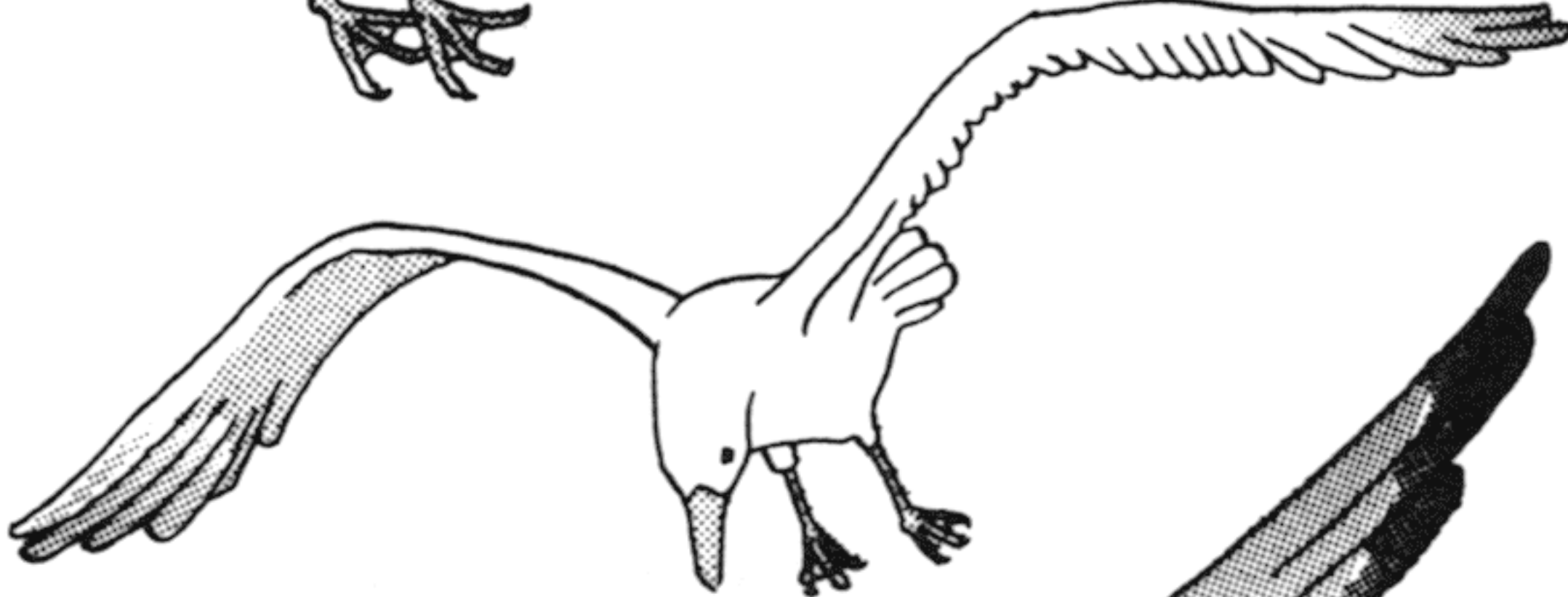
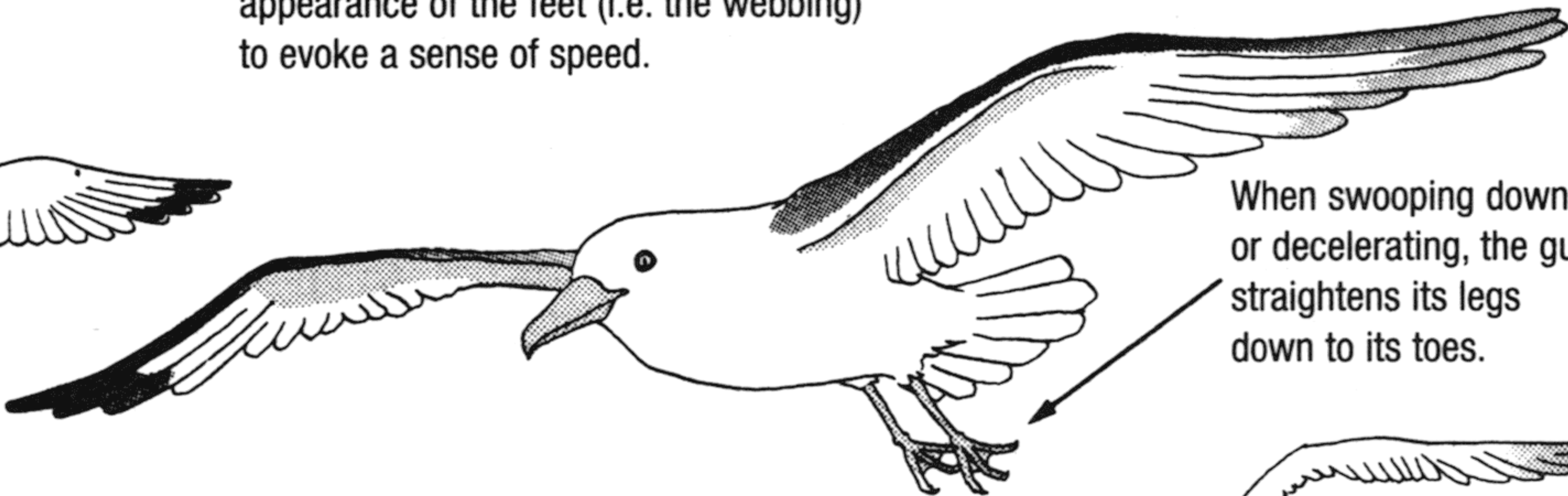
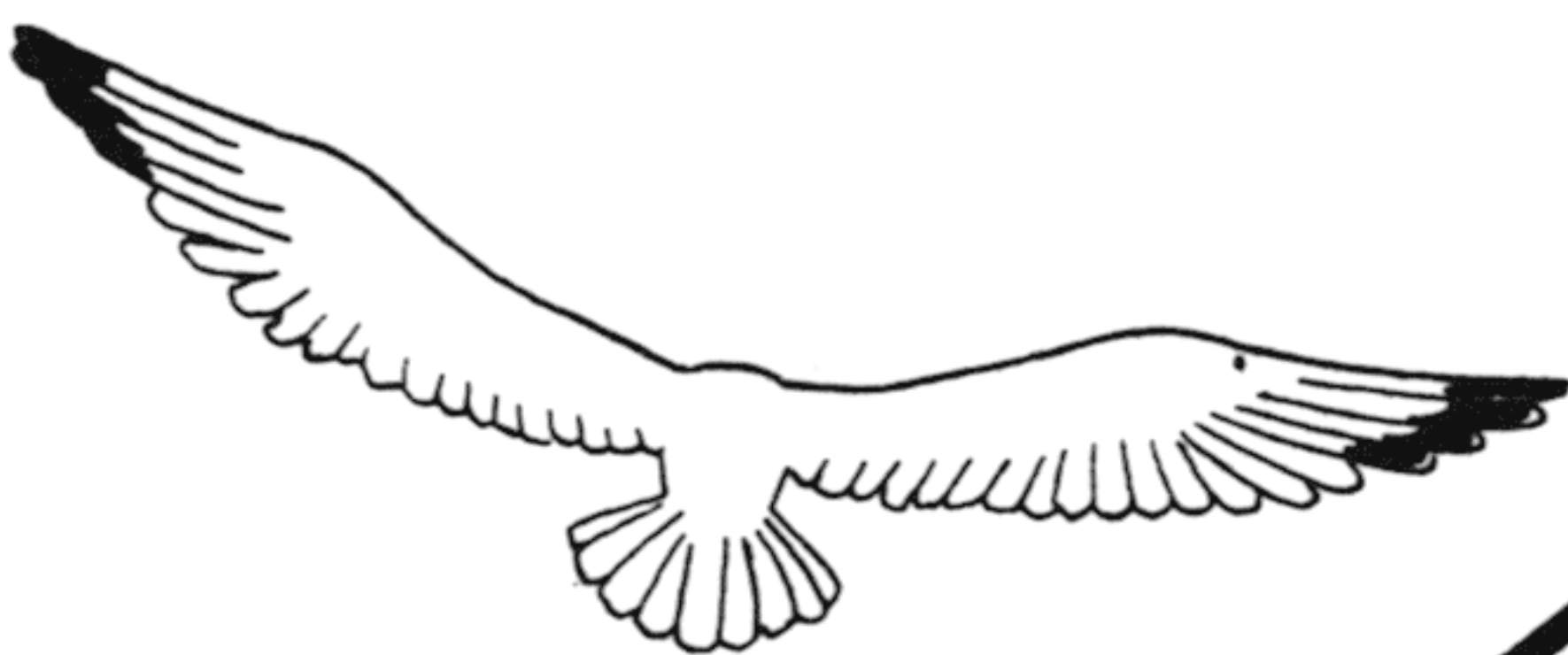
Peregrine falcon

The Steller's sea eagle has a head-to-body ratio of 1:6 with the beak occupying about half of the head.

Golden eagle

Osprey

Seagulls

The gull's long bill should be approximately the same length as its head. Also, adding tiny pupils will help to make your gull convincing.

When drawing a gull flying, use the appearance of the feet (i.e. the webbing) to evoke a sense of speed.

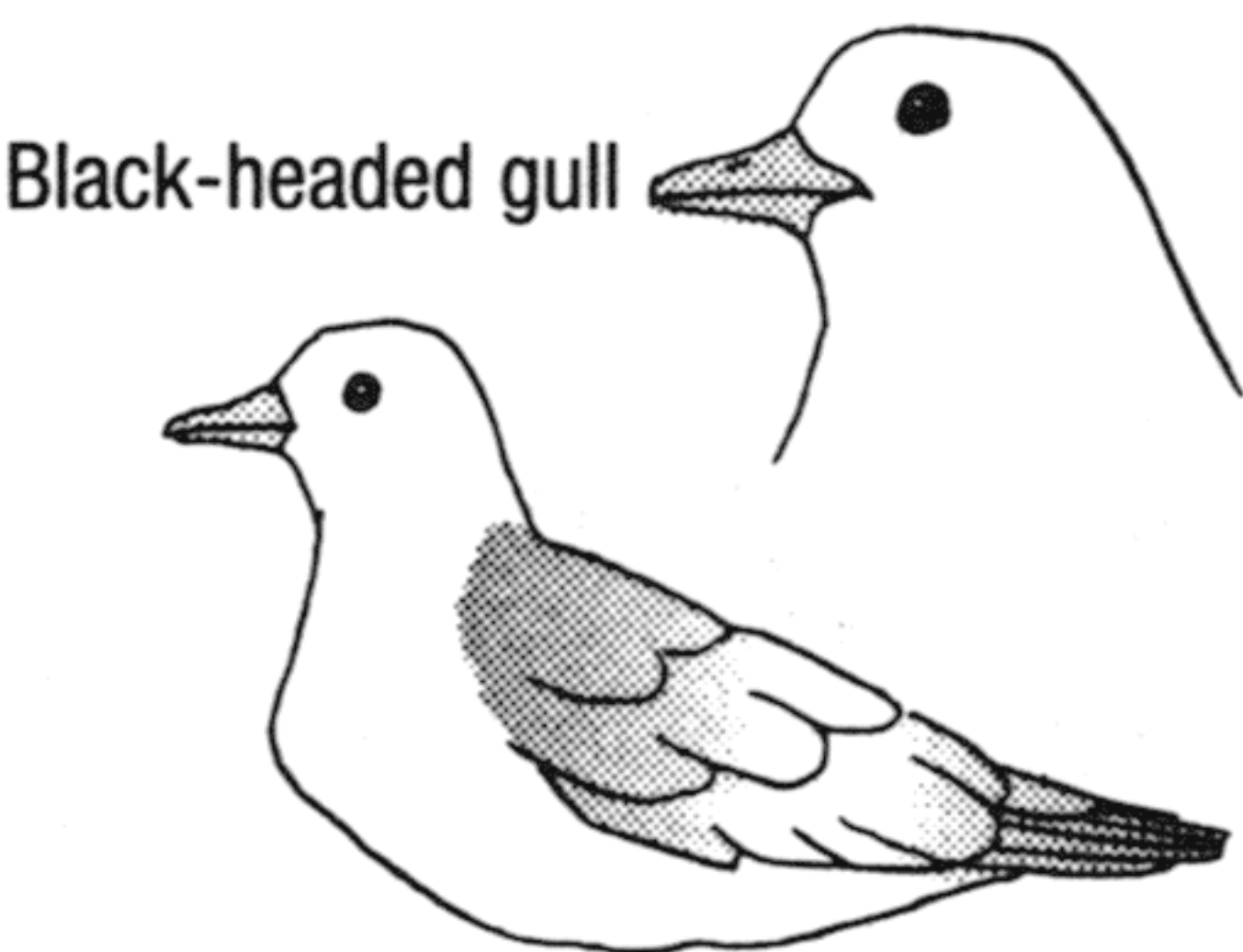
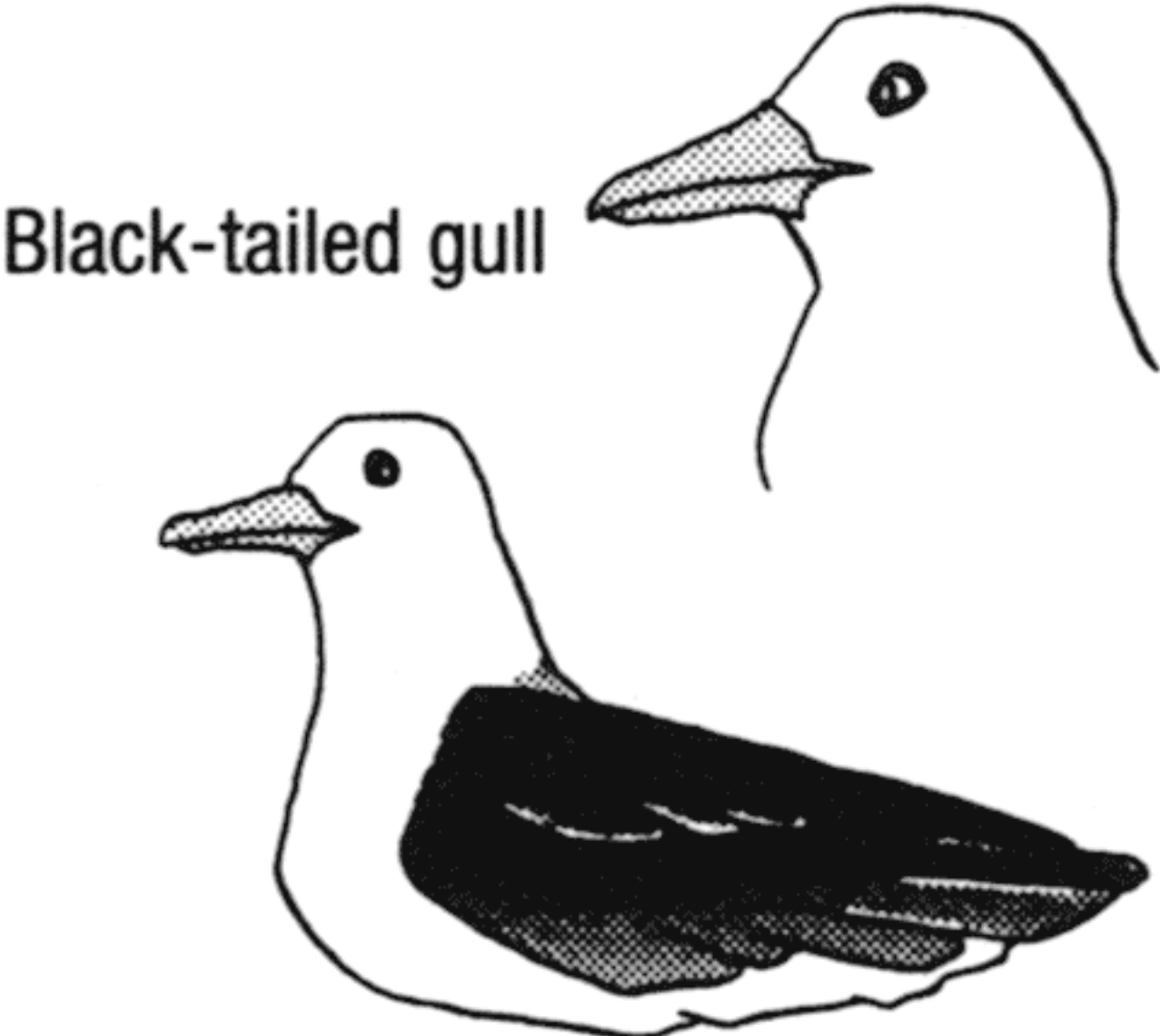
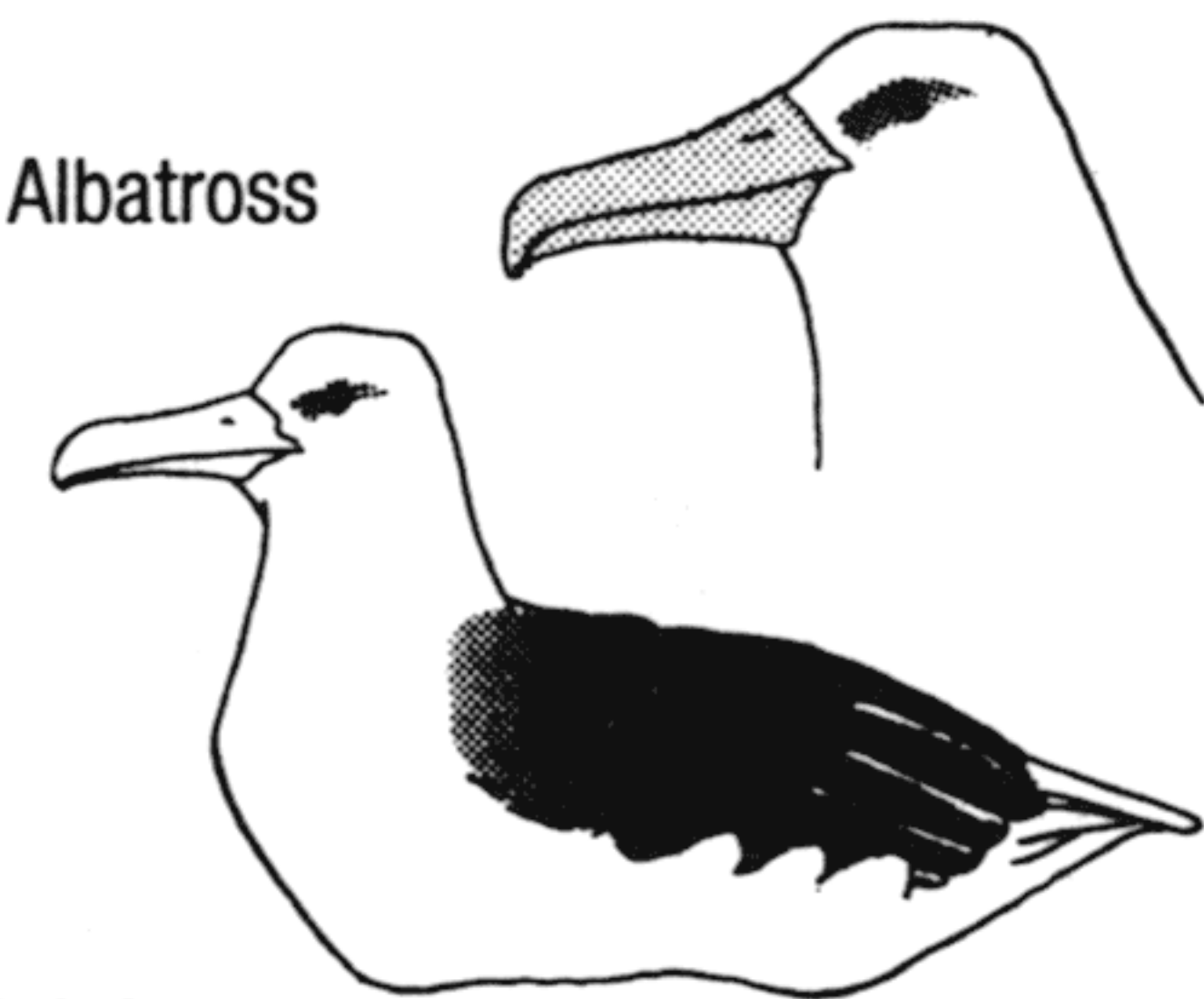
When swooping down or decelerating, the gull straightens its legs down to its toes.

Typically when the gull is in flight, it tucks its legs to the rear.

Common Gulls

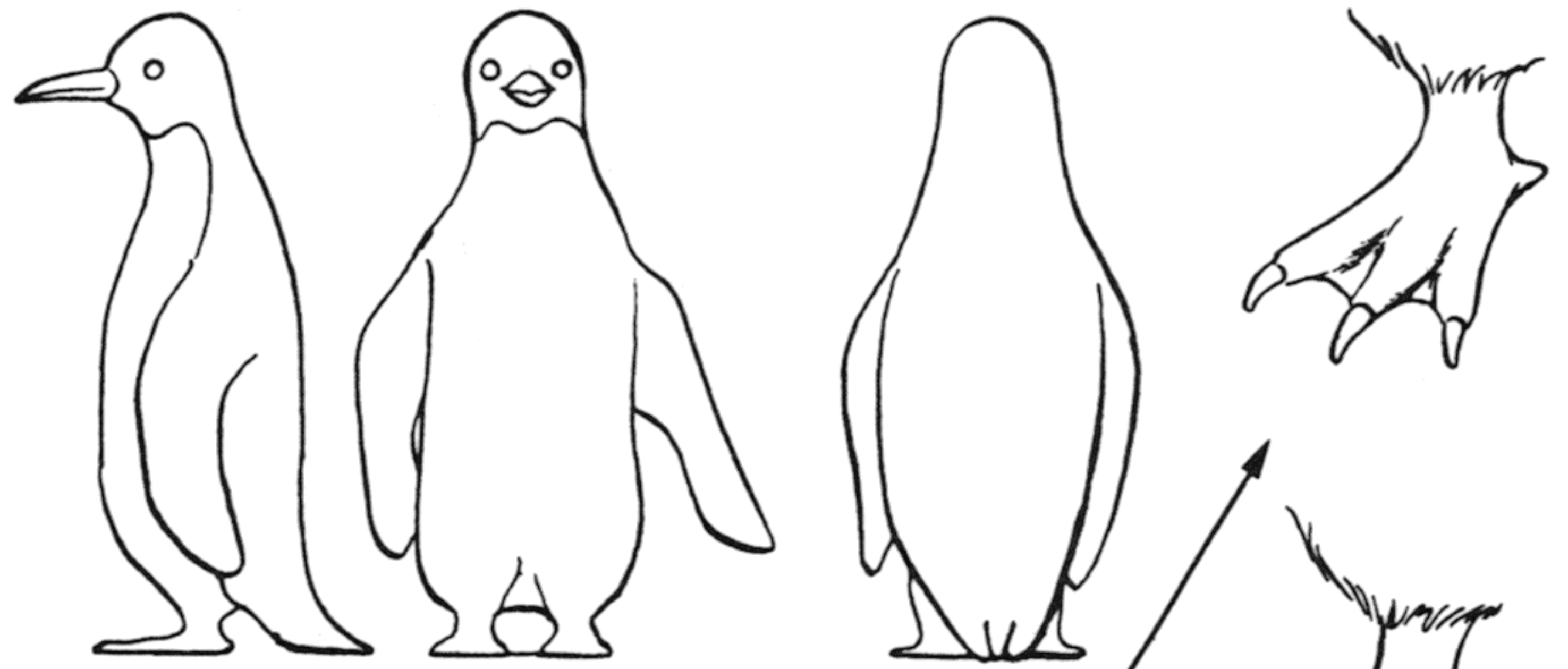
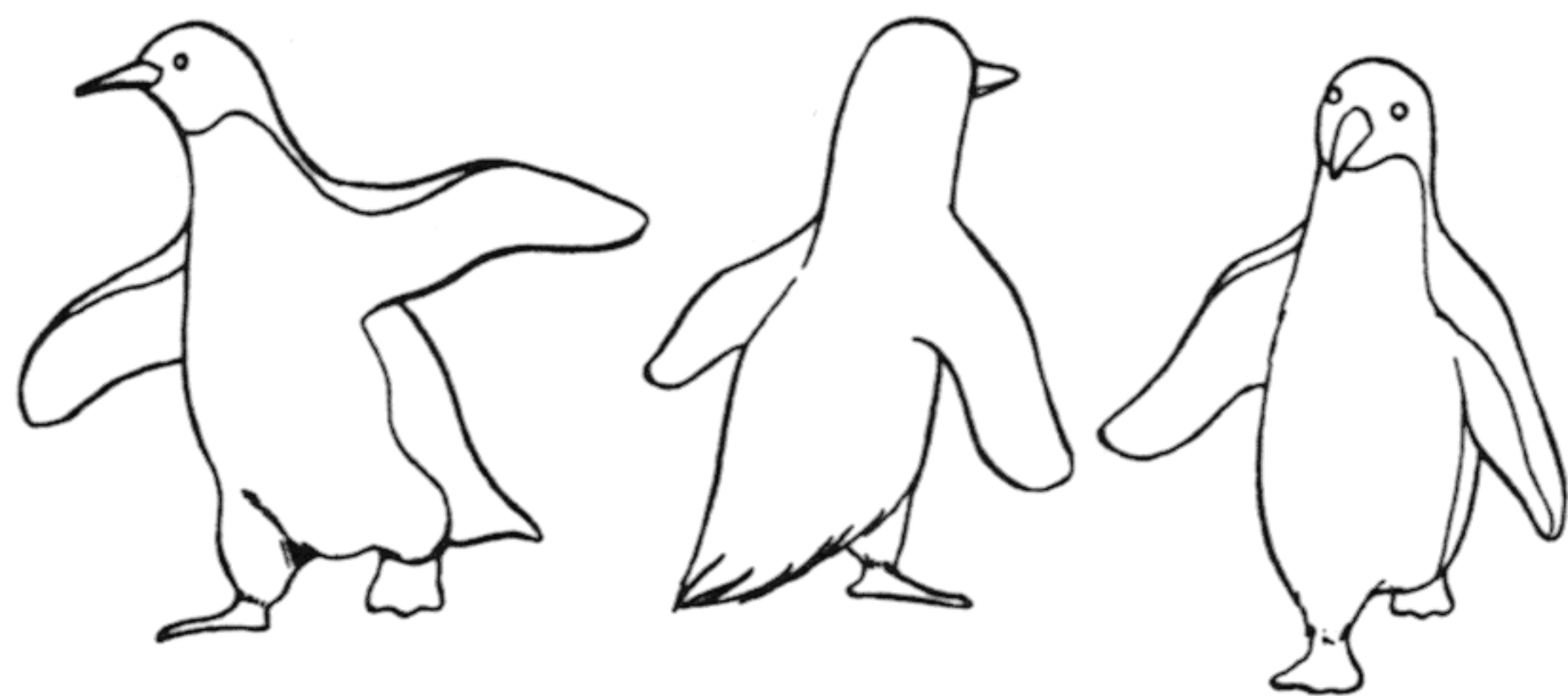
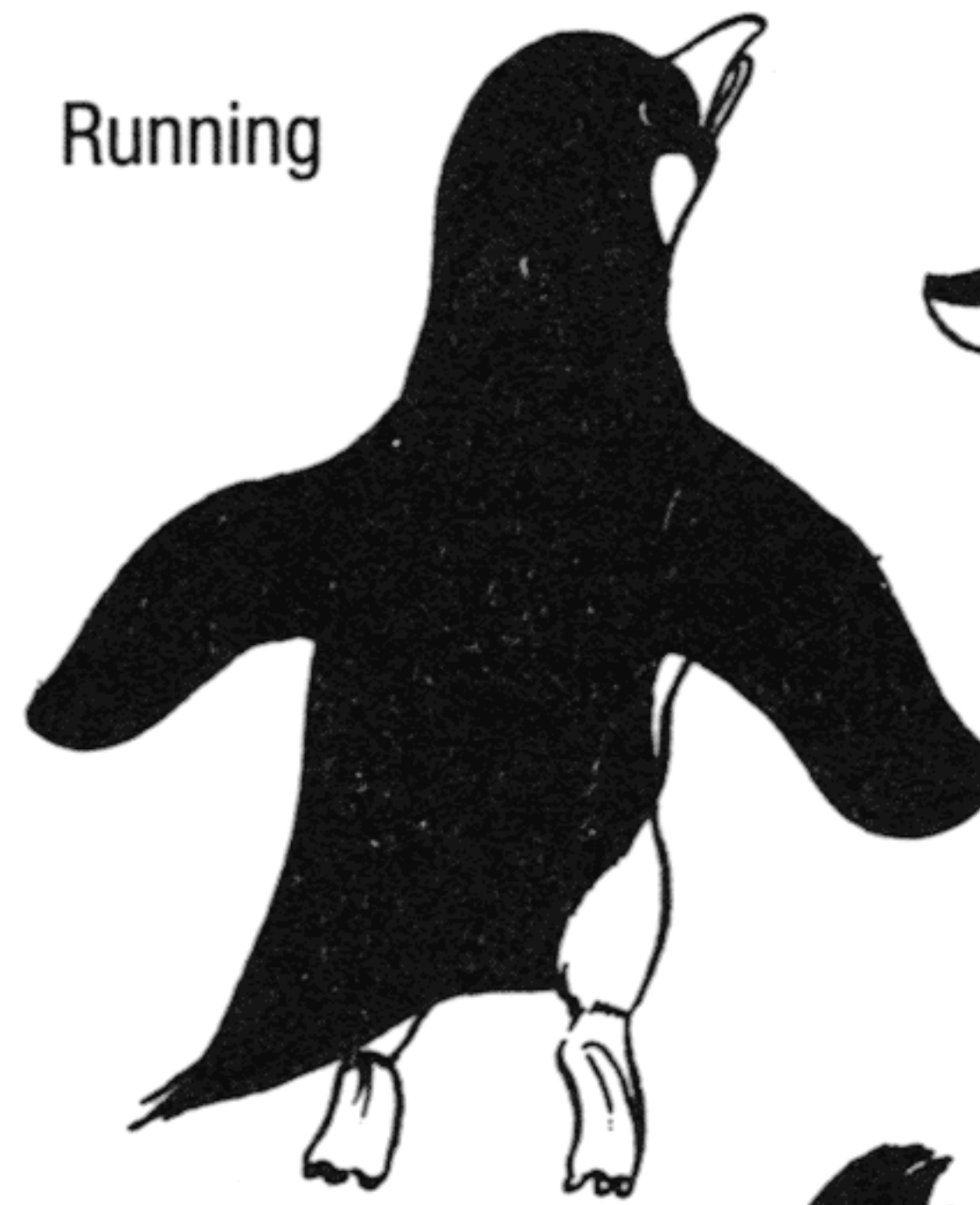
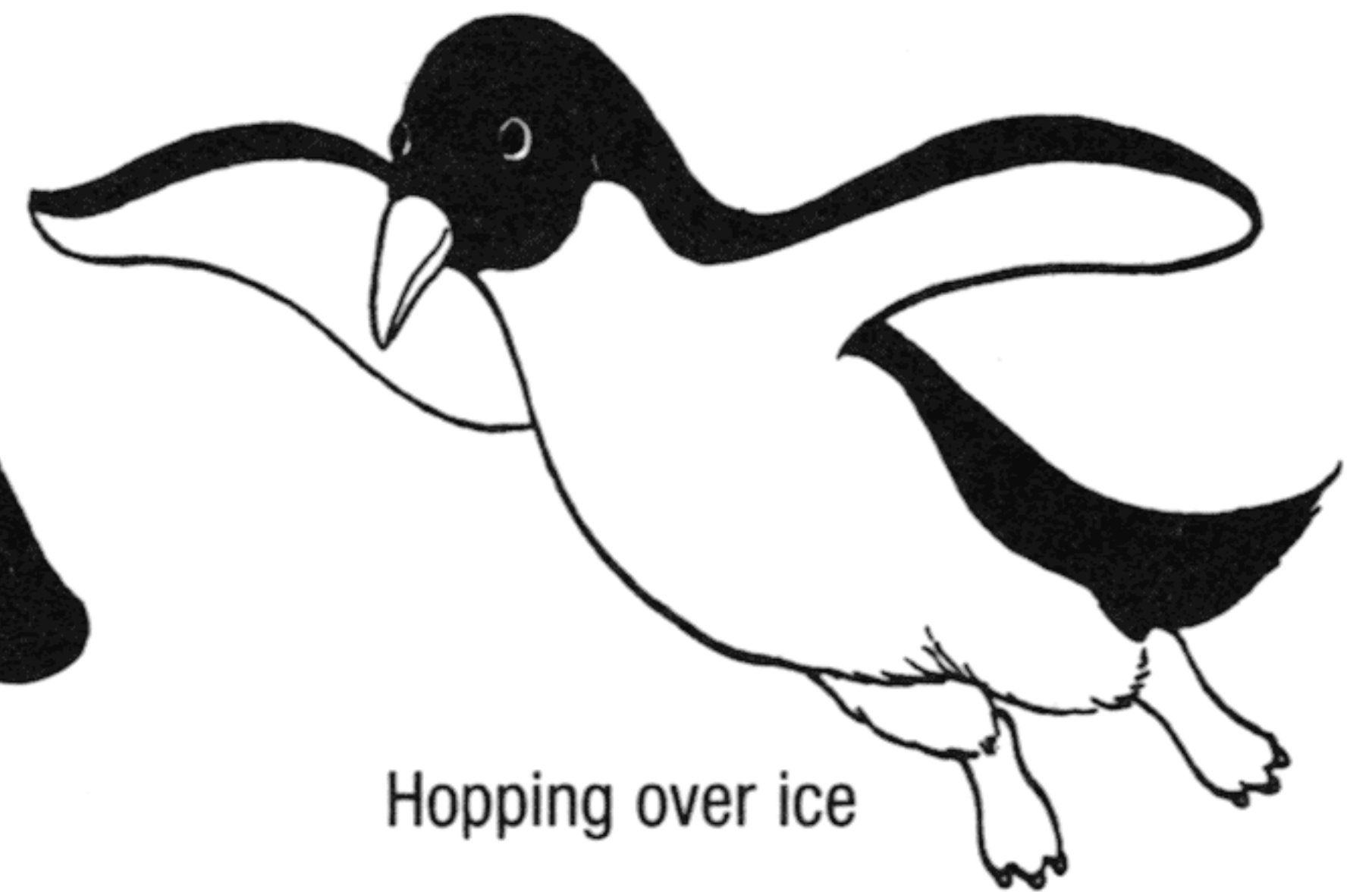
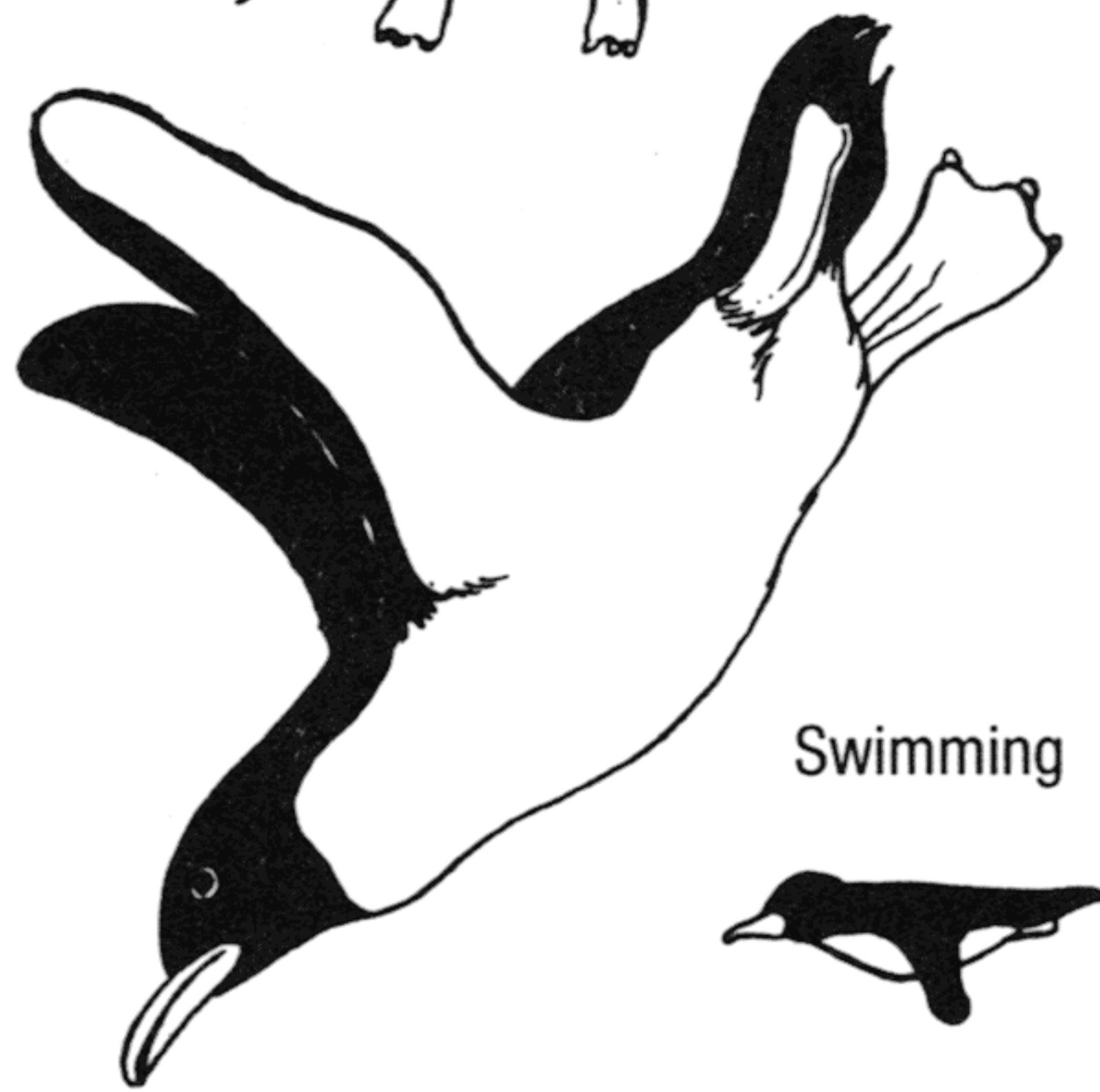
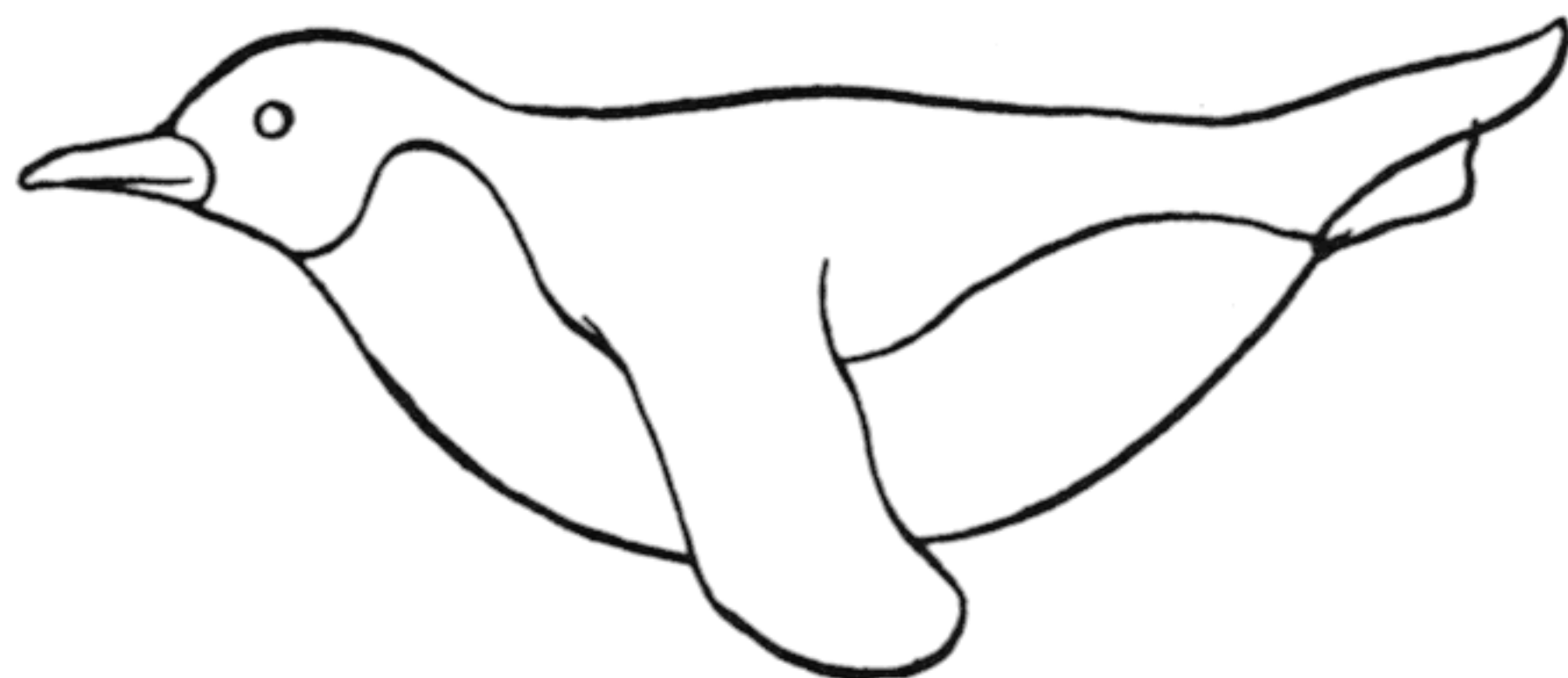
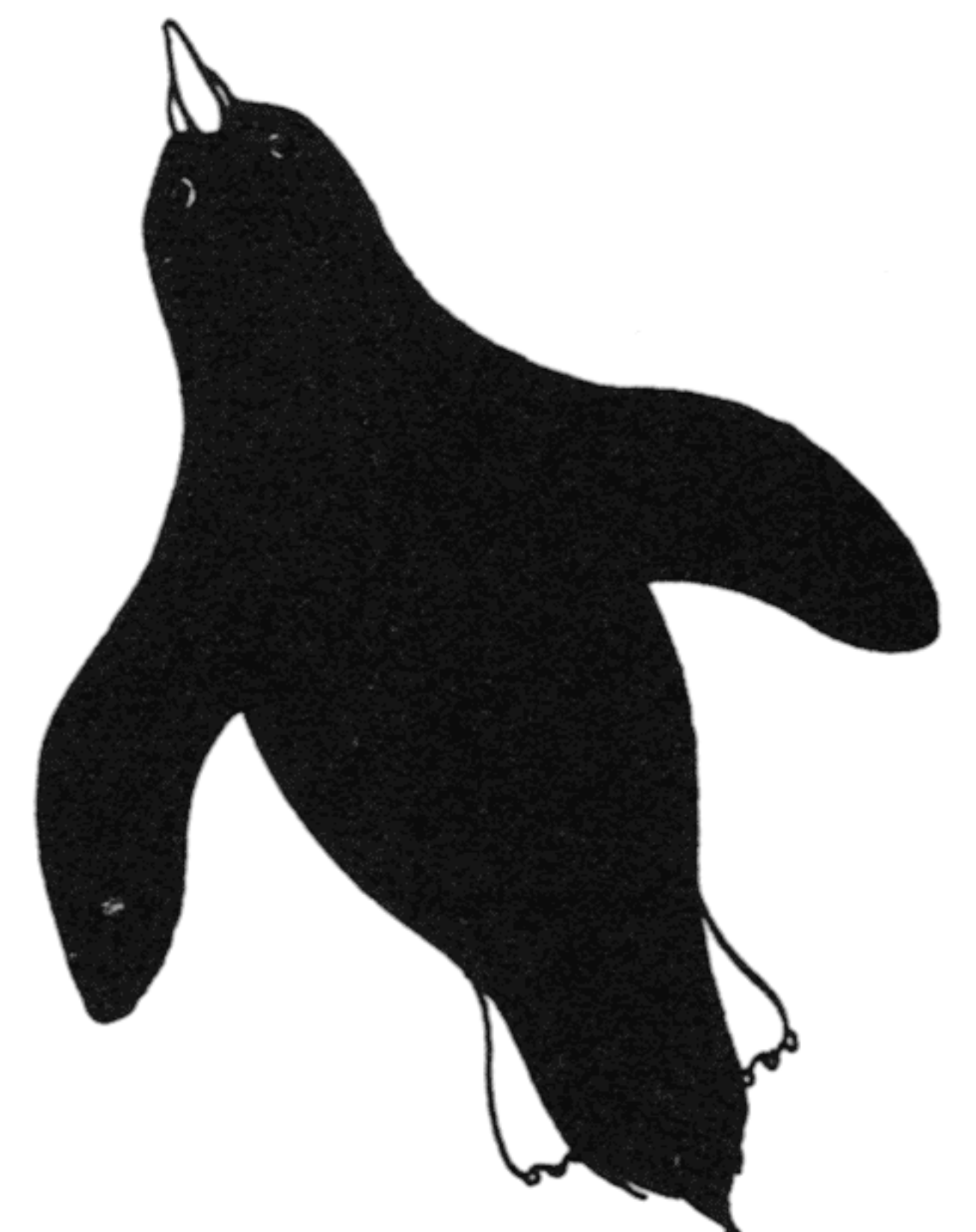
Use differences in the bill's length and shape, and the plumage to distinguish between the different species.

Albatross

Black-tailed gull

Black-headed gull

Penguins

All penguins have black covering them from the head to back and white bellies.

Like other waterfowl, the bill is the same length as the head.

Like finches, penguins have three toes facing forward and one facing back on each foot.

Running

Hopping over ice

In the water

Swimming

Assorted Penguins

Note the coloration as well as the length and size of the bills.

Emperor penguin	King penguin	Adelie penguin	Chinstrap penguin	Rockhopper penguin	Macaroni penguin	Humboldt penguin	Cape penguin
100 to 130 cm (39" to 50 11/16")	85 to 95 cm (33 1/2" to 37 3/8")	70 cm (27 1/2")	70 to 76 cm (27 1/2" to 29 7/8")	45 to 58 cm (17 3/4" to 22 3/4")	69 to 70 cm (27 1/8" to 27 1/2")	66 to 72 cm (26" to 28 3/8")	68 cm (26 3/4")

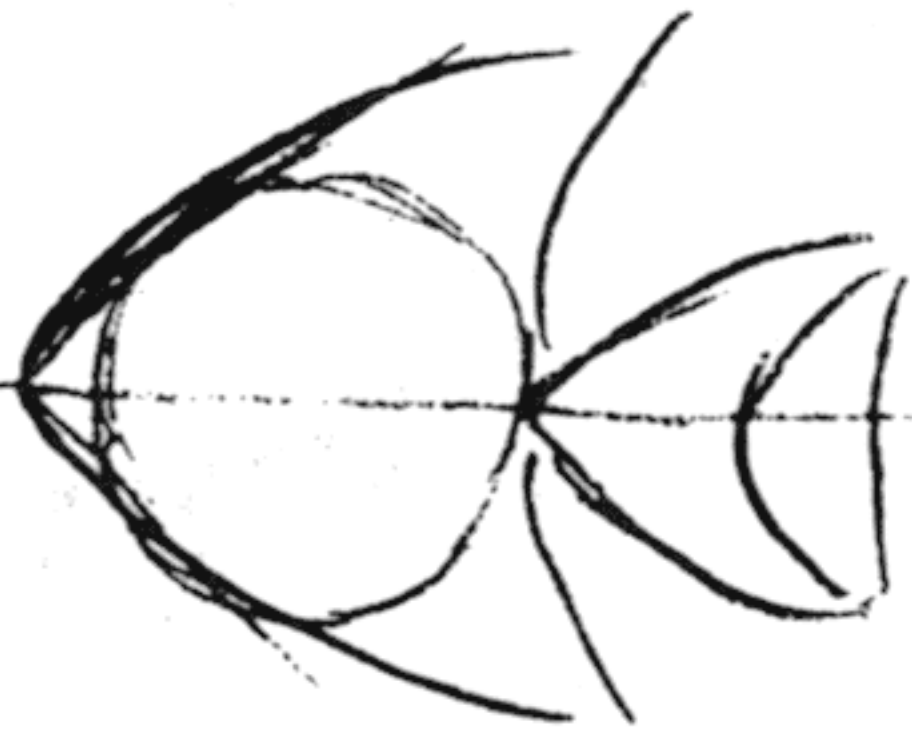
Tropical Fish

From a side view, the angelfish fits into almost a perfect square.

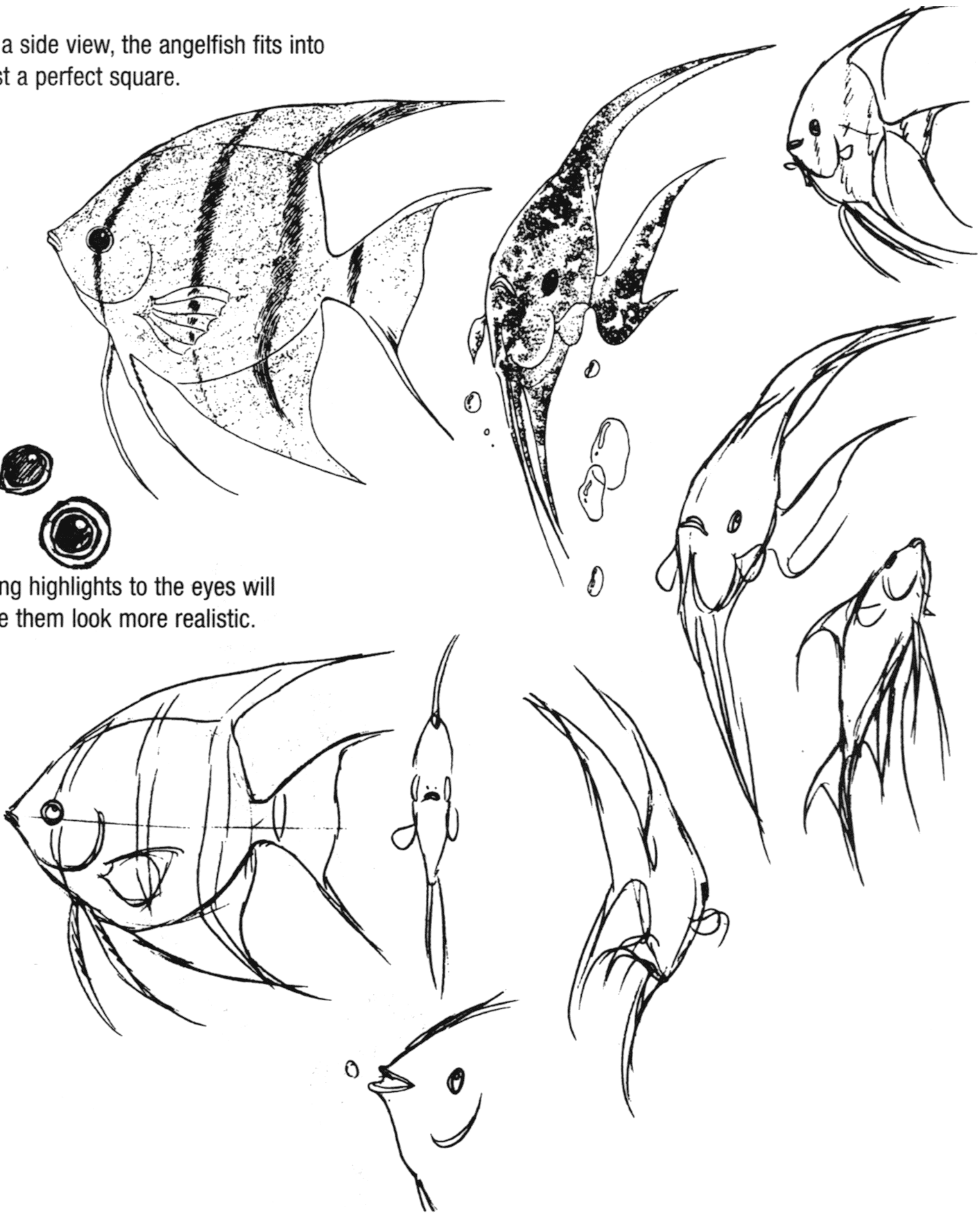
Angelfish

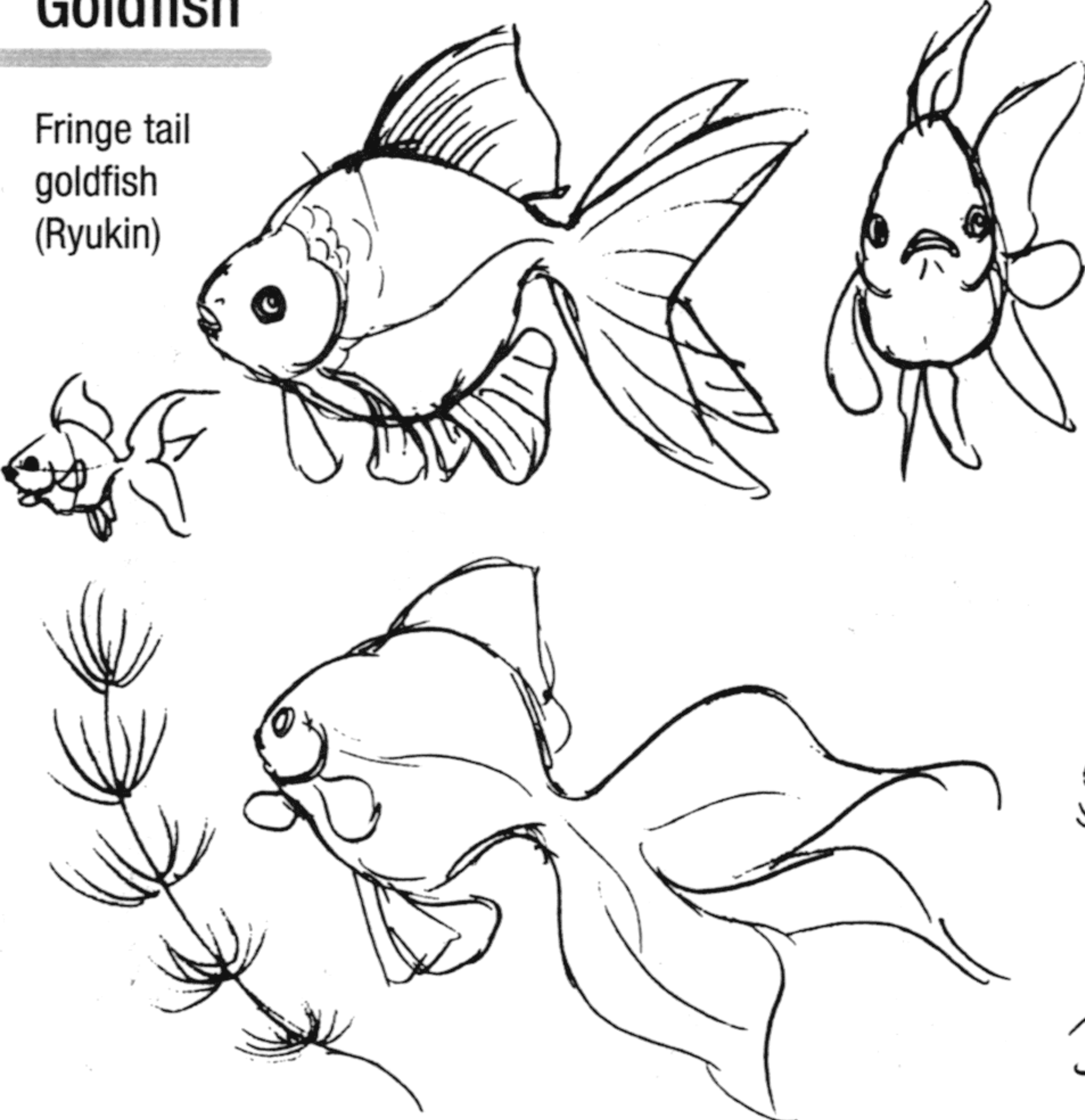
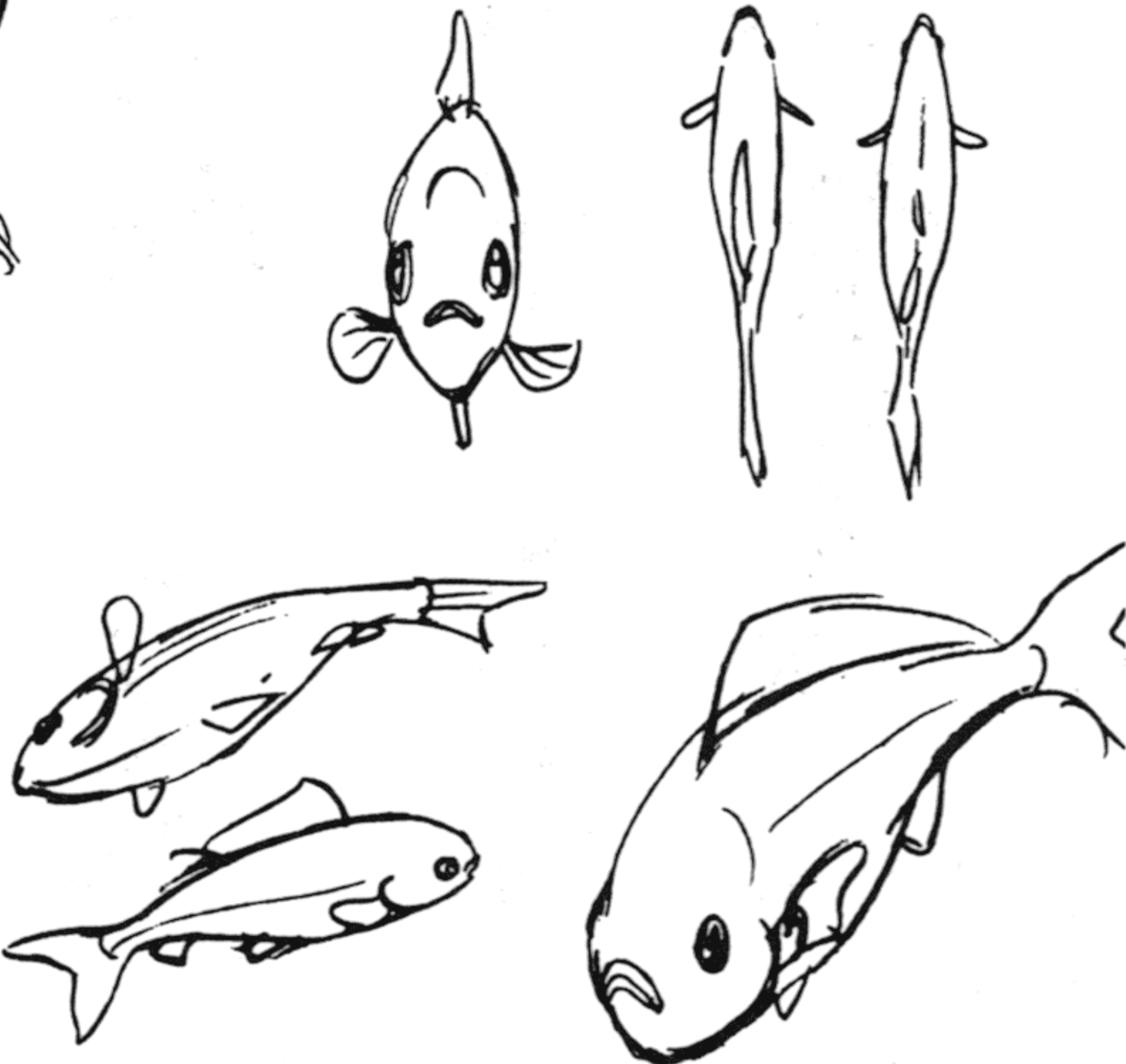
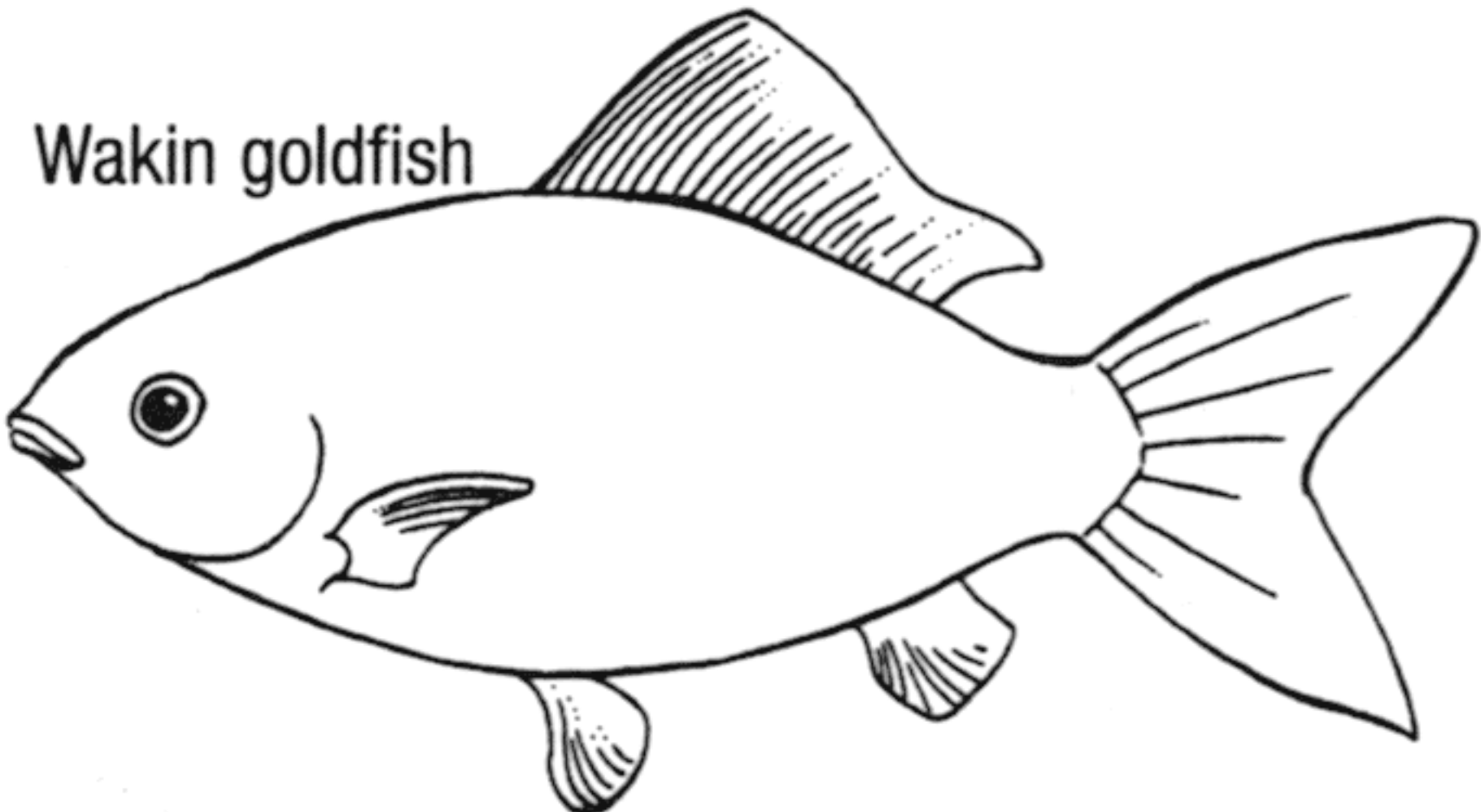
Easy Peasy Angelfish

1. Draw a circle.

2. Draw an arrow.

3. Draw the contours.

4. Add the fins and draw the coloration pattern.

Adding highlights to the eyes will make them look more realistic.

Goldfish

Fringe tail goldfish (Ryukin)

Wakin goldfish

Draw fluttering fins and tails to impart a sense of movement.